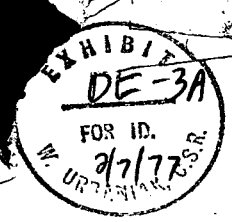


November 10, 1976

Mr. David Longstreet
Engineer
Office of Special Services
New Jersey State Department of
Environmental Protection
P. O. Box 2809
Trenton, New Jersey 08625

Dear Dave,

As was promised, attached is a chronology of all letters, memos and reports contained in the Emergency Response and Inspection Branch's Rovic Construction Company file.

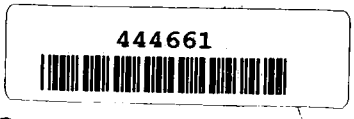
This chronology should be integrated with your chronology to have a complete company history. EPA would like a copy of your chronology in the event Federal litigation ever ensues.

Sincerely yours,

Michael V. Polito
Emergency Response &
Inspection Branch

Attachment

SA/ERI:MVPolito:nde:Bldg.209:x595:11/10/76



Hold for Ventron

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: April 28, 1977

SUBJECT: Ventron

FROM: Michael V. Polito, Chemist
Emergency Response & Inspection Branch

TO: William J. Librizzi, Chief
Emergency Response & Inspection Branch

Attached is my chronological notations on Ventron as reflected in my diary notations for 1974-1976.

Attachment

Nancy
call those who still owe

Bill

July 1

Meeting with Ventron Corporation. Company claims they inherited dirty land. They must cleanup with the State specifying needs. The meeting took all morning.

Familiarized myself with Ventron situation. Martin Tanzer, U. S. Testing, to contact me.

Got together with Librizzi and Lamp'l to discuss and define extent of operation. Lamp'l told me not to get involved.

July 3

Received Ventron data. Sent Gluckstern and Longstreet Ventron data. Transmittal values to Dave Longstreet. Dave related to me Bureau of Solid Waste notice of prosecution for violation 7:26-22 and 7:26. I called Henry Gluckstern and notified him.

July 8

I organized a trip to the old Ventron Company site. Company was discharging water from their property. No samples taken. J. Lafornara and Hank Jeleniewski accompanied me on the trip.

Received telephone calls about Ventron. Gluckstern wants to shut them down.

July 9

Checked with H. Jeleniewski who did some original field work. No determination was made that effluent was reaching the creek.

Ed Faille called. Wanted to know when we could take corings.

Martin Tanzer from U. S. Testing called. We discussed analysis of Ventron site. We discussed heavy metal analysis, PCBs, chlorinated hydrocarbons.

July 10

Martin Tanzer, U. S. Testing. We will sample the Ventron site tomorrow.

Dave Longstreet called to keep me posted on Ventron site. Would like a letter on what I saw at Ventron.

July 11

We sampled the Ventron site. Howard Leeman and Bob Fuchs from U. S. Testing did sampling. At site number 5, water was hit at 18 inches. A grid was drawn.

July 15

Talked with J. Lafornara about mercury problem and removal. I called John Ciancia about possible removal of mercury for soil physical chemical separation. He advised of Eimco Liquid Solid Separator and Dora Oliver.

I delivered samples to laboratory. Lamp'l says no analysis necessary or desired.

July 17

I called Dave Savetsky of Solid Waste Branch. I discussed the Ventron situation and inquired about possible solutions. He suggests removal to Chem Trol, Model City or Rollins Pearl (Logan), New Jersey. Solid Waste has no immediate solution. Other possible solutions:

(a) Dump in lined dump (Depford, N.J.)
(b) Deep ocean dumping

Suggests I call Hazardous Waste Management Division, Washington, D.C. (Al Lindsay).

Martin Tanzer called, says Andrews has not yet given approval for analysis. He is holding corings.

Met with Pete Anderson to discuss possibilities of ocean discharge of mercury.

July 18

Called N.J. Solid Waste to discuss possibility of removal. Rollins Environmental Services and Pollution Abatement Services, Oswego, NY.

Charles Gingrich returned call. Recommended the National Association of Secondary Materials be contacted for possible solution.

I reached a man named Sharp from National Association of Secondary Materials. Has no definite solution.

July 22

Received back and reviewed Ventron photographs. Dave Longstreet called. We discussed Ventron. Feels Wolff will attempt to use political pressure to get around problem. Clause in contract states they will remove anything Rovic wants removed. All other material becomes Rovic property (I guess this refers to contract between Rovic and Ventron).

Art Lindsey called. Still looking into matter.

John Santro, on site consultant from Model Cities Buffalo, analysis of liquid wastes from site:

Cadmium	0.02 - .25 mg/l
Zinc	0.9 - 17 mg/l
Mercury	50 mg/l

I felt I needed to know the following about the liquid waste material:

1) Amount of waste material? - 40,000 gallons
2) Where is it going?
3) What are we going to do with it?
4) Will NY State allow material into State?

Jerry Sharp, National Association of Secondary Materials, called. Still looking into problem. No apparent solution.

I called John Santro and related above questions. Material is not to be moved.

Related to Henry Gluckstern latest incidents in Ventron case. Henry will review and get back to me tomorrow.

July 23

Put in a call to Ron Maylath, NYSDEC. Called to find out if NY State had any objection to allowing waste in N.Y. Has no objection as long as it is a reprocessing operation. He says he will follow up from NY State's end. Knows of ChemTrol and feels it is a reputable company.

Frank Estabrooks called. Checked with NY legal people. No objection to removal into NY State.

John Andrews called. Bill Librizzi also on phone. Told him we would release after we receive written data.

Dave Longstreet stopped in. Delivered Wood-Ridge Chemical State file for review. Reached tentative decision at site. Will recommend removal of material right away.

July 24

Fred Lindsey called, Washington Office of Solid Waste Management. He made the following suggestions:

Define Problems

1) How deep is mercury contamination?
2) Is it moving?
3) Is it entering watercourse?
   (a) methylation

Solutions

1) Leave it there.
2) Reprocess (example)
   a) George Pacific - Roast mercury
3) Landfill in lined lagoons

Reviewed Ventron site file. The site was owned by Berk Chemical, then Wood-Ridge Chemical, then Ventron, then Wolff, then Rovic.

Consulted with Pat Nixon. We have no Ventron file in our records. (Purpose was to look at post environmental data.)

I ran an experiment to see the conversation of mercury to mercuric sulfide. Does not work. (A solution had been proposed that site should be sprinkled with sulfur.)

Martin Tanzer called. Samples have been sent.

August 5

Delivered Ventron samples to the laboratory.

Sent a copy of ChemTrol data to Maylath for review.

August 6

Received letter from Al Lindsey, Hazardous Waste.

I called Charles Hoffman. I reported on Ventron. Need for action.

Dave Longstreet called. We will meet at site on Thursday.

August 8

Went to the Ventron site. Met with Dave Longstreet and Ed Faille. We reviewed the Ventron site. I wrote memo to file about visit.

I called Charles Hoffman. Henry does not know the legal basis for Refuse Act Violation. Henry wants to enjoin Rovic.

August 9

Delivered a Ventron sample to lab. I wrote a letter to Librizzi on additional work to be done on Ventron.

I wrote a memorandum to file outlining yesterday's visit and happenings.

Dave Longstreet called. Would like our attorney to contact N.J. State Attorney, Ron Hecksch.

August 16

There was a meeting with Rovic with the following in attendance: John Andrews, Bill Librizzi, Dave Longstreet, Henry Gluckstern and Robert Wolff. A compromise was supposedly reached.

September 2

Called Dave Longstreet and discussed Ventron.

September 12

In conversation with Ed Faille, we arranged Ventron meeting for September 19.

September 16

A meeting was held with Karl Birns and Dave Longstreet. We discussed the Ventron situation. Karl wants to accept on-site containment.

September 19

Inspected the Ventron site.

September 27

I called Ed Faille and asked him for a memorandum tracing spills at Ventron into Berrys Creek.

Wrote Ventron RAPP violation.

December 5

A meeting was held. Those present were John Andrews, Robert Wolff, Henry Gluckstern, Ernest Johnson, Dave Longstreet. Bill Librizzi was also scheduled to be present.

Johnson made a proposal for on-site treatment, but does not have complete identification of mercury forms in soil.

December 6

Wrote a series of reports on Ventron.

December 11

Discussed Ventron case with Ed Faille. There was a meeting with Librizzi and Longstreet on Ventron. A copy of my memo outlining recommendations on Ventron was given to Longstreet.

December 17

Dave Longstreet called regarding sports complex. They are permitting effluent discharge level of 0.01 mg/l mercury.

Jeff Zelickson - 0.01 mg/l mercury can be achieved by treatment.

Talked with Harry Allen. Tolerance set at 1/20 of 96 TL_{50} value .0005 mg/l. Bioassay organisms to be established by 40 CFR 129.08. Approved permit level 0.005 mg/l.

Year End.

1975

January 20

Meeting with Dave Longstreet and Karl Birns on Ventron.

January 21

Another meeting or conversation with Birns on Ventron.

January 28

John Andrews called concerning results of mercury testing on Ventron site.

February 3

Talked with Librizzi - 1 hour on Ventron.

February 5

D. Longstreet called - Ventron - told him I was awaiting his reply.

March 13

Worked on Ventron letter - Henry's. I discussed with Bill that these were not my recommendations.

Got in touch with Longstreet on Ventron.

April 14

Went to Ventron - reviewed site.

May 29

William Jud of ARCO interested in Ventron. Went to Ventron site to determine possible mining of ore.

July 23

Got letter out to Gluckstern on Ventron.

August 4

Handled ARCO letters - Ref. Ventron. Lloyd Gannon - Rovic Construction International Recycling will handle removal of material. Wants to excavate certain areas.

August 11

Meeting with B. Librizzi on Ventron. Will write report on visit.

August 13

Wrote report on Ventron.

August 22

Had a meeting with Ventron in New York.

1976

October 28

Meeting with State of New Jersey - Ventron.

November 23

Worked on Ventron Data - Jacangelo Report.

ITEM	DATE	CONTENT	WRITER
1	None	A reproduction of Volume 4, Number 1, March 1971, copy of Environmental research titled, "The Hazards of Mercury", 69 pages	N/A
2	5/74	Report on Soils Investigation Park Place East Development, Wood-ridge, New Jersey	J. Ward Engineers
3	6/12/74	Memo describing notification to EPA of situation at Rovic	Librizzi (EPA)
4	6/13/74	Memo of meeting of 6/11/74 with Rovic, EPA and DEP. Lists constraints on site work and indicates NJDEP as lead agency in project with EPA providing assistance	Librizzi (EPA)
5	6/17/74	Letter outlining agreements of meeting of June 12, 1974 with Rovic. Attached is telegram order establishing discharge requirements	Longstreet (DEP)
6	6/19/74	Laboratory results of samples taken on June 19, 1974. Heavy metal salts and organic chemicals are identificed on property. Site map attached	Brezenski (EPA)
7	6/20/74	Memo describing site visit by EPA and DEP. Reports of enforcement attitude that Rovic might have violated FWPCA Act	Librizzi (EPA)
8	6/21/74	EPA Enforcement Branch notifies Rovic of violation of 33 USC §407 and 33 USC §1342	Gluckstern (EPA)
9	6/28/74	Results of water samples taken in Berrys' Creek on June 21, 1974	Brezenski (EPA)
10	7/1/74	List of persons who attended a meeting with Rovic on July 1, 1974 NJSDEP was to write minutes of meeting	N/A
11	7/2/74	Result of a sample collected from an effluent pipe at Ventron	Brezenski (EPA
12	7/15/74	Observations of a site visit to construction site. Mercury observed on property	Polito (EPA)

Prepared by Mike Polito

13	7/18/74	Two-way internal memo - persons contacted for advice on mercury treatment	Polito (EPA)
14	7/17/74	Shipping order - U. S. Testing to EPA	U. S. Testing
15	7/19/74	Letter coordinating sample analysis. Attached is map prepared by Polito showing sample locations	U. S. Testing
16	7/22/74	Letter to Tanzer, U. S. Testing, coordinating sampling	Polito (EPA)
17	7/23/74	Two-way internal memo - request for sample analysis	Polito (EPA)
18	7/23/74	Letter to EPA describing Chem-Trol's ability to handle liquid waste from Rovic with attachments	Santoro (Chem-Trol)
19	7/24/74	Letter to EPA enforcement requesting legal definitions	Polito (EPA)
20	7/29/74	Letter from the Washington Hazardous Waste Management Division recommending possible solutions to mercury contamination problem	Lindsey (EPA)
21	8/5/74	Letter coordinating mercury samples with U. S. Testing	Polito (EPA)
22	8/5/74	Chemical stability of mercury sludge	Polito (EPA)
23	None	Chemical results of U. S. Testing's sampling. Heavy metals and PCBs detected in soil	-
24	8/8/74	Memo describing Rovic's violation of verbal agreements with environmental agencies	Polito (EPA)
25	8/8/74	Laboratory analysis - Ventron sample - heavy metals including mercury quantitated	Brezenski (EPA)
26	8/8/74	Two-Way memo advising EPA Enforcement of EPA lab analysis of Ventron sample	Polito (EPA)
27	8/8/74	Laboratory results obtained by U. S. Testing at construction site	Tanzer (U.S. Testing)

28	8/9/74	Internal EPA memo outlining items to be studied at construction site	Polito (EPA)
29	8/16/74	Memorandum of Understanding, EPA, DEP and Rovic giving constraints on property development. Also attached is original site map	
30	8/23/74	Letter by Rovic to NJDEP concerning authorization to remove construction debris	Andrews (Rovic)
31	8/30/74	Letter to NJDEP supplying soil sample result	Andrews (Rovic)
32	9/13/74	Lab result of land in back of Rovic	Brezenski (EPA)
33	9/19/74	Memorandum of site visit and violation of Memorandum of Understanding samples taken from drainage ditch	Polito (EPA)
34	9/27/74	Lab results from September 19 sampling	Polito (EPA)
35	9/30/74	Letter to EPA Enforcement advising them of possible RAPA violation	Polito (EPA)
36	10/1/74	Laboratory results obtained - Jersey Testing of construction site	Elsaady (Jersey Testing)
37	10/1/74	Notification by NJDEP to EPA describing observations of 9/19 visit	Faille (DEP)
38	10/8/74	Letter to EPA Enforcement forwarding Faille's memorandum	Polito (EPA)
39	11/6/74	Memo to Librizzi describing studies that should be made at Ventron site	Polito (EPA) ± my position
40	12/6/74	Memo outlining readings in Hazards of Mercury paper	Polito (EPA)
41	12/6/74	Describes meeting with Rovic on 12/6/74. Contains attached estimate of the amount of mercury on site and map of mercury contamination obtained by Jersey Testing	Polito (EPA)
42	12/9/74	Describes method of sampling by Jersey Testing and a proposed treatment technique	Andrews (Rovic)

43	12/18/74	Letter to EPA Enforcement describing S&A's recommendations for action	Librizzi (EPA)
44	1/2/75	Letter to Rovic describing Joseph S. Ward, Inc. Consulting Engineers' solution to mercury contamination problem within constraints established	T. Scheil (J. Ward)
45	1/8/75	NJDEP memo regarding internal project of DEP - survey of Hackensack Meadowlands mercury data	Tiffany (DEP)
46	1/10/75	Hand-written notes on meeting of 1/10/75 - contains the same information as 1/2/75 report	Polito (EPA)
47	1/28/75	Analysis of samples taken by Rovic contractor	Elsaady (Jersey Testing)
48	1/29/75	Supplement 1/2/75 letter from J. Ward Inc to Rovic and contains Ward's complete recommended program to deal with mercury pollution problem at construction site	Scheil (J. Ward)
49	1/30/75	Reports to EPA results requested at 1/10/75 meeting	Andrews (Rovic)
50	2/6/75	Four letters to mining companies soliciting information on recovery of mercury from contaminated soil	Gluckstern (EPA)
51	2/14/75	Describes NJDEP biological study in Hackensack River - annual reports to be distributed	Jacangelo (DEP)
52	2/13/75	Sampling procedures used by Jersey Testing Laboratories at Rovic site (destruction of media work)	Elsaady (Jersy Testing)
53	2/14/75	Special investigation of Berrys' Creek by NJDEP Fisheries on 7/3/74	Jacangelo (DEP)
54	2/28/75	Agreement between Rovic Construction, EPA and NJDEP for conditions pertaining to construction in Wood-Ridge Development	Scolnick (EPA)

55	6/3/75	Establishing contact for Jud of Arco with Rovic	Polito (EPA)
56	6/9/75	Jud of Arco rejects Rovic $150,000 soil purchase price	Jud (Arco)
57	6/20/75	Forward copy of Arco letter to Rovic	Polito (EPA)
58	6/23/75	Advises EPA Enforcement of JUD memo	Polito (EPA)
59	7/8/75	Phone conversation with Wolff - telephone memorandum	Polito (EPA)
60	7/8/75	Letter asking additional information from Arco	Polito (EPA)
61	7/23/75	Letter to Gluckstern - copy of news article giving public interest in Rovic site	Polito (EPA)
62	7/22/75	Letter to Enforcement attempting to solicit information from Arco	Polito (EPA)
63	6/25/75	Letter to Polito from Arco withdrawing interest in mercury recovery at Ventron site	McAlister (Arco)
64	8/5/75	NJDEP advises Wolff that he is violating agreement by proceeding with work at construction site	Longstreet (DEP)
65	8/11/75	Letter to Wolff advising him of method of proceeding with EPA	Polito (EPA)
66	8/11/75	Rovic writes to State of N.J. concerning removal of contaminated soil from property	Ganon (Rovic)
67	8/12/75	Site visit observation noting Rovic violation of past agreements Chain of Custody attached	Polito (EPA)
68	None	Stop Order issued by NJDEP to Rovic controlling certain construction	Ricci (DEP)
69	8/13/75	Advises EPA Enforcement of non-acceptability of Rovic standards	Polito (EPA)

70	8/15/75	McCormic Associates Plan for Mercury Budget Plan Review	
71	8/20/75	Advises EPA Enforcement again of violation at Rovic site	Polito (EPA)
72	8/25/75	Comments on a report by McCormick Associates on sampling in Berrys' Creek	Polito (EPA)
73	8/25/75	Reports on H. Gluckstern making declaration that EPA has no legal basis to prevent Wolff from building on his property	Polito (EPA)
74	9/3/75	Meeting with Rovic in which they are reported to accept Scolnick's proposals	Polito (EPA)
75	9/17/75	Draft proposal between EPA, DEP and Rovic prepared by DEP	Longstreet (DEP)
76	9/20/75	Reports results of Meadowlands sampling to Jacangelo, NJDEP	Brezenski (EPA)
77	10/20/75	Memorandum of meeting with Rovic and attorneys with Gluckstern	Gluckstern (EPA)
78	11/20/75	Memorandum to Jacangelo giving results of Meadowland sampling	Brezenski (EPA)
79	11/8/76	Memo to Longstreet giving a complete copy of all material EPA has pertaining to Rovic	Polito (EPA)

78

November 21, 1975

Mr. Donald Jacangelo
New Jersey Fish & Game
Lebanon, New Jersey 08833

Dear Mr. Jacangelo:

Attached is the laboratory report on samples submitted to this lab for analysis.

Sincerely yours,

Michael V. Polito
Emergency Response & Inspection Branch

Attachment

SA/ERI:MVPolito:nde:Bldg.209:x598:11/21/75

CONCURRENCES

SA/ERI							
POLITO							

320-1

OFFICIAL FILE COPY

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

REPLY TO ATTN OF: 2-SA-TS

DATE: Nov. 5, 1975

SUBJECT: Analytical Results for Water, Sediment, Fragmities, Cattail and Killi Fish Samples, N.J. Fish and Game Commission.

TO: M. V. Polito
Emergency Response Branch

EPA Lab. Sample No.	N.J. No.	Sample	Hg(dry wt.) mg/kg	Total Solids %	Hg(wet wt.) mg/kg	Hg mg/kg
40262	1	sediment	25	60		
40263	2	sediment	35	60		
40264	3	sediment	0.3	48		
40258	1	Cattail (tuber&top)			0.3	
40265	1	Plant (stem)			1.2	
40259	2	Fragmities (tuber&top)			1.5	
40266	2	Plant (stem)			1.1	
40260	-	Killi Fish				0.4

			Hg ug/l
40255	1	Water Sample	0.6
40256	2	Water Sample	0.4
40257	3	Water Sample	0.3

Francis T. Brezenski
Chief
Technical Support Branch

EPA FORM 1320-6 (11-71)

77

Memorandum of meeting between EPA and Wolf Enterprises, Inc. October 17, 1975

October 20, 1975

Henry Gluckstern
Attorney
Water Enforcement Branch
File

The meeting was attended by Robert Wolf and Michael Rodburg of Lowenstein, Sandler, Brochin, Kohl & Fisher, Newark, N.J. The meeting began with Mr. Wolf bringing up the monitoring wells that are to be constructed as a result of the agreement to be signed by Wolf, EPA and NJDEP. Mr. Wolf objected that he had to perform the monitoring and analysis of the samples from these wells. I stated that it would be possible to consider EPA doing these tests. If the concentration of mercury proved to exceed an agreed-to amount (5 ppb was mentioned), then Wolf would repeat the tests and take action if the analysis were confirmed. A provision could be added to the agreement that if this concentration were exceeded, then the 20 foot deep perimeter wall would be built.

Mike Rodburg then insisted that as far as his legal understanding of the legal history of the Act was concerned, the permit requirement was geared to people with discharges that related to the business occupying the premises, and that since the use here was a warehouse, and since no mercury is connected therewith, that no permit was required. I read him the NPDES regs concerning non-applicability of regs to un-controled and uncontaminated discharge, but insisted that here we had a case of perhaps uncontaminated, but controlled, as a result of the culvert, discharge. Rodburg insisted that he wished to preserve the company's right to contest, at a later date, the classification of his use as a "point source", and that the provision for modification of permits was inadequate. He did not contest that if Ventron were still there, and water flowed over the property, there would be a basis for issuance of a permit. Here, he stated, the pollutant discharge has ceased, and as a result, the point source no longer exists.

As to the deed stipulation desired by EPA, Wolf is selling to a mortgagor, who will lease back to Wolf. As a result, a deed stipulation would cloud the title, since the arrangements for the transfer of this property were made befoer EPA came into the picture. What Wolf desires is a document, saying whatever EPA wants it to say, which must be exhibited on prospective sale of leasehold.

2 ERC-WE:GLUCKSTERN:hg:x4430; 20/10/75

2 ERC-WE

I stated that I would consider the monitoring proposal, but as far as EPA doing the monitoring of the NPDES sampling schedule, that was impossible and contrary to the Act. I also said that I would consider the problem of classification of the facility as a point source, as well as the substitution of the deed stipulation by a document to be exhibited at the time of transfer of the property.

cc: Bill Librizzi
Surveillance and Analysis Division

Mike Polito
Surveillance and Analysis Division

David Longstreet
NJDEP

Bort Goldfein
NJ Atty General's Office

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

76

September 20, 1976

Mr. Donald Jacangelo
New Jersey Division Fish and Game
Bureau of Fisheries
Lebanon, New Jersey 08833

Dear Mr. Jacangelo:

The following samples received on 8/25/76 were identified as follows:

EPA Lab. Sample No.	Station No.	Sample Source and Description
37079	1	Sediment sample collected from Hackensack Meadowlands, Berrys Creek @ West Tide Gate.
37080	1	Water sample collected from Hackensack Meadowlands, Berrys Creek @ West Tide Gate.
37081	2	Sediment sample collected from Hackensack Meadowlands, Berrys Creek @ West Tide Gate.
37082	2	Water sample collected from Hackensack Meadowlands, Berrys Creek @ West Tide Gate.
37083	3	Sediment sample collected from Hackensack Meadowlands, Berrys Creek @ Pumping Station.
37084	3	Water sample collected from Hackensack Meadowlands, Berrys Creek @ Pumping Station.
37086		Phragmitis - root tubers, stems collected at Berrys Creek, Starke Drive.
37085		Catails - root tubers, stems collected @ Berrys Creek, Starke Drive.

Results

EPA Lab. Sample No.	Hg ug/l	Hg mg/kg (dry wt.)
37079		577
37080	2.1	
37081		4480
37082	0.43	
37083		5.5
37084	0.20	
37085 (Root Tubers)		51
37085 (Stems)		1.2
37086 (Root Tubers)		170
37086 (Stems)		3.5

Mercury determinations were made by atomic absorption spectrophotometry.

Sincerely,

Francis T. Brezenski
Laboratory Director

cc: P. Elliot, Edison

75

September 17,1975

U.S.E.P.A.
26 Federal Plaza
New York, New York

Attention: Mr. Henry Gluckstern

Dear Henry:

Enclosed is dadraft proposal between N.J.D.E.P., U.S.E.P.A., and Rovic Construction. Please read it over and make any comments and additions as expeditiously as possible.

The deed stipulation was objected to by Mr. R. Wolff, but I think that this item is absolutely required. A copy of this draft is also being sent to Mr. Mort Goldfien, our Deputy Attorney General. You may want to co-ordinate your comments with him also.

Sincerely yours:

DCL

David C. Longstreet
Supervisor Spill Prevention
Office of Special Services

c.c.: Mr. M. Polito, EPA II, Edison, New Jersey

Enc:

E23:G6

No contact with me made prior to issuance of this letter.

DRAFT AGREEMENT BETWEEN ROVIC CONSTRUCTION COMPANY
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In order to mitigate pollution by mercury and mercury compounds of the waters of the State of New Jersey and the waters of the United States from the site currently being developed by Rovic Construction Company, an affiliate of Wolff Enterprises (On lot 10, Block 229, Park Place East), in Wood-Ridge, County of Bergen in the State of New Jersey, Rovic Construction Company and Wolff Enterprises agree to accomplish the following:

1. Continous Building Perimeter Footing and Paving

   a. The exterion footings shall be a continous footing founded in the gray sand directly below the organic layer.

   b. The footing shall be poured neat, i.e. without forms, in contact with the organic soil. The concrete wall on the footing may be formed.

   c. Keyed joints with waterstops shall be used between pours and between the footing and foundation wall.

   d. The entire area around the structure shall be sealed with an asphaltic pavement.

2. Shallow Cut-Off Wall

   A wall shall be constructed around the perimeter of the southern and eastern property lines. The southerly wall shall extend at least 50 west of the western building line. These walls shall be to a depth of one foot below the surface of the organic silt layer, or to a depth of five feet from the surface of the topsoil, whichever is greater.

3. Paving

   Complete impervious paving of the surface of the construction site shall be performed.

4. Drainage

   All drainage from the property shall be carried by drainage ditches constructed of a water-impervious material.

5. NPDES

A monitoring program shall be conducted in a manner specified by the National Pollutant Discharge Elemination System permit which will be issued to the site.

6. Observation Wells

A minimum of three observation wells shall be installed in order to sample the water table below the organic silt layer. One observation well is to be located inside the building at a location selected by Rovic Construction Company.

The other two wells shall be located external to the cut off walls, one on the westerly side and the other on the easterly side of the property.

7. Sampling of Observation Wells

A sampling program shall be established as follows:

1. Samples shall be taken within one month after construction of the building from the three observation wells.
2. Samples shall be taken from three wells every six months thereafter.
3. Additional samples shall be taken if requested by New Jersey Department of Environmental Protection or USEPA from these wells.
4. The samples so taken shall be subjected to test (5) for mercury and mercury compounds as established by Standard Test Methods. The test report shall indicate the amount of mercury present in parts per billion per liter of water sample. A copy of the report shall be sent to NJDEP and another copy filed on the property for inspection by NJDEP or USEPA personell during normal business hours.

8. Maintainance of Property

A semi-annual inspection schedule shall be maintained of all above-ground structures constructed to mitigate mercury pollution. A file shall be kept on the property, available for inspection by EPA and NJDEP during normal business hours. Such records shall be filed for a minimum of three years on the site from the date of inspection and forwarded to NJDEP at the end

of that time. Inspections shall be maintained and continued by any owner(s) of this property in pepertuity unless relieved by NJDEP and USEPA concurrently. All cracks in paving and drainage shall be repaired within 14 working days of their detection.

9. Rat Slab

10. Deed Stipulation

The conditions of any stipulation entered into by the above mentioned parties shall appear in any deeds executed in transference of ownership or proprietorship of the property referred to above, and such stipulation shall be recorded in the records of the County Clerk's Office.

If any later survey or studies conducted by NJDEP, USEPA or any other agency responsible for environmental quality determines that the above mitigating actions are not sufficient to meet the requirements of the final NPDES permit which will be issued to the site or the requirements of any law or regulations relating to aquifers, or other waters of the State of New Jersey, it is agreed that the owners or operators shall comply with any additional requirements that may be imposed.

Dated:

Signed:

_____

for USEPA

_____

for NJDEP

_____

for Rovic Construction Company, Inc.
Robert J. Wolff

74

2-SA-ERI

September 3, 1975

Ventron Construction Site

William Librizzi, Director
Surveillance & Analysis Division

The Wolf Realty Company and Rovic Construction have basically accepted the proposals of Meyer Scolnick, except for making the railroad bed impermeable. It is currently planned to be of standard gravel construction.

The only idea I have is an asphalt topping on top of the rail ties for the entire track bed. Since rail bed construction is not my field of expertise, please make any suggestions or requirements you may have to Henry Gluckstern.

Michael V. Polito
Emergency Response & Inspection Branch

cc: H. Gluckstern, ENF-WE

SA/ERI:MVPolito:nde:Bldg.209:x598:9/3/75

CONCURRENCES

SYMBOL	SA/ERI							
SURNAME	POLITO							
DATE	9/3/75							

EPA FORM 1320-1

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13

2-SA-ERI

August 25, 1975

Meeting with Rovic (Wolf Realty)

File

On August 22, 1975, we met with Rovic Construction. Persons in attendance are indicated on the attached attendance sheet.

The meeting followed the lines of similar meetings. I raised the question of the destruction of the impervious layer by sampling and digging on site. This was denied by Wolf. He had to retreat from his position when I showed him a letter from his chemical consulting (analysis) firm, indicating depth of sampling.

After what has become usual bantering, Scolnick's letter became predominating. Wolf tried to blame the State for holding things up but Scolnick's letter and Wolf's failure to reply was brought out.

Henry Gluckstern informed Wolf that the Federal Government has no legal basis to prevent him from building. The only instance where we would have jurisdiction is if the mercury pollution were declared a public health emergency.

We have a future meeting with the soil engineering firm, Joseph Ward at the construction site to discuss the effect of the destruction of the impervious layer, as well as Rovic officials.

Michael V. Polito
Emergency Response & Inspection Branch

Attachment

cc: H. Gluckstern, ENF-WE

SA/ERI:MVPolito:nde:Bldg.209:x598:8/25/75

CONCURRENCES

SYMBOL	SA/ERI							
SURNAME	POLITO							
DATE								

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2-SA-ERI

August 25, 1975

J. McCormick Associates

William Librizzi, Director
Surveillance & Analysis Division

I have reviewed attached plan as requested. Comments I have are as follows:

(1) Sampling does not appear comprehensive enough to prove objective; specifically, the sampling of the tidal Berrys' Creek.

(2) They have not attended to hydrological aspects of swamp, as necessary in the budget.

(3) I feel they should bias their study more toward the Ventron site, and show the input of this sink toward the mercury problem.

(4) Precipitation study seems very weak. Results may be very misleading.

It is difficult to review in further depth, as I feel they devised a study with cost restraints imposed. For the money, it does not look bad.

Michael V. Polito
Emergency Response & Inspection Branch

Attachment

SA/ERI:MVPolito:nde:Bldg.209:x598:8/25/75

CONCURRENCES

SYMBOL	SA/ERI							
SURNAME	POLITO							
DATE								

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79

November 8, 1976

Mr. David Longstreet
New Jersey State Environmental
Protection
P.O. Box 2809
Trenton, New Jersey 08625

Dear Dave,

Enclosed is the completed copy of the Rovic file maintained by the Emergency Response & Inspection Branch. Other branches in EPA may also have files which you may require.

Contact should be made directly to these branches which are the Laboratory Branch (Kampbell) and the Enforcement Branch in New York (Gluckstern).

Sincerely,

Michael V. Polito
Emergency Response &
Inspection Branch

Enclosures (2)

SA/ERI:MVPolito/pan:Bldg. 209:X595:11/8/76

71

2-SA-ERI

August 20, 1975

Rovic Construction

Henry Gluckstern
Water Enforcement Branch
Enforcement Division
EPA, Region II
26 Federal Plaza
New York, New York 10007

In my September 30, 1974 letter to you I reported results of sampling of an effluent leaving Rovic property with mercury in the 15,800 ug/l range.

On my latest trip to the Rovic Construction site, I encountered Rovic pumping out a hole in which they were installing fuel oil tanks.

I took a sample of this effluent, which was leaving their property, and had it analyzed for mercury. The value, as shown on the attached report, was 3,400 ug/l (3.4 mg/l).

To the best of my knowledge, Rovic does not have a permit to discharge a hazardous waste and, as such, could be in violation of one of the EPA permit programs or they have a RAPP violation.

At our January 10, 1975 meeting, Mr. Falkenbury of our Permit Branch had given Mr. John Budd, Mr. Wolff's attorny, forms and outlined requirements for lawful conformance with the permit program. I have since followed up with telephone conversations with John Frisco who was to get together with you. I advised you of my conversations with John. You were to get together with John on this. If you could before our meeting on this Friday, it might be advantageous.

Michael V. Polito
Emergency Response & Inspection Branch

Attachment

cc: W. Librizzi, 2-SA
J. Frisco, FT-IF
D. Longstreet, NJSDEP

SA/ERI:MVPolito:nde:Bldg.209:x598:8/20/75

CONCURRENCES

SYMBOL	SA/ERI							
SURNAME	POLITO							
DATE								

EPA FORM 1320-1

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ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

REPLY TO ATTN OF: 2-SA-TS

DATE: Agusut 20, 1975

SUBJECT: Ventron Co.

TO: M. V. Polito
Emergency Response Branch

Sample 39999, collected from the Ventron Co., contained 3,400 µg/1 of Hg.

Francis T. Brezenski
Chief
Technical Support Branch

EPA FORM 1320-6 (11-71)

70

M. Polito

2-SA

August 15, 1975

Proposed Plan for Mercury Budget - Berry's Creek

Chief, Technical Support Branch
Chief, Surveillance & Monitoring Branch
M. Polito, Emergency Response & Inspection Branch

Please review the attached plan. Water Branch is also reviewing same. Our comments will be forwarded to Joan Colson.

Any comments that you have regarding improvements and potential coordination with any studies we have should be forwarded to me by September 17, 1975.

Bill

William J. Librizzi
Director

Enclosure

Table 1. Results of analyses for mercury in sediments collected during June 1972 and February 1974 from the Berrys Creek tidal marsh, Bergen County, New Jersey. All concentrations are in milligrams of mercury per kilogram of oven-dry sediment. Stations are located in Figure 1.

	1972			1974		
	0-2	2-4	4-6	MAT	0-6	30-36
1[a]	19.0	-	7.4			
2[a,c]	74.0	38.0	0.3			
3[a]	26.0	-	44.0			
4				29.2	61.7	8.3
5[b]	3.0	-	208.0			
6				28.4	60.1	7.1
7				37.8	40.6	9.1
8[b]	2.3	-	8.2			
9				29.9	36.7	14.6
10[b]	6.0	-	7.0			
11[b]	6.7	-	96.2			
12				33.9	75.0	5.5

[a] Results presented in impact statement (1972), page VII-15.

[b] Results presented at public hearing (1972).

[c] Sample from bottom of drainage channel; other samples are from marsh areas.

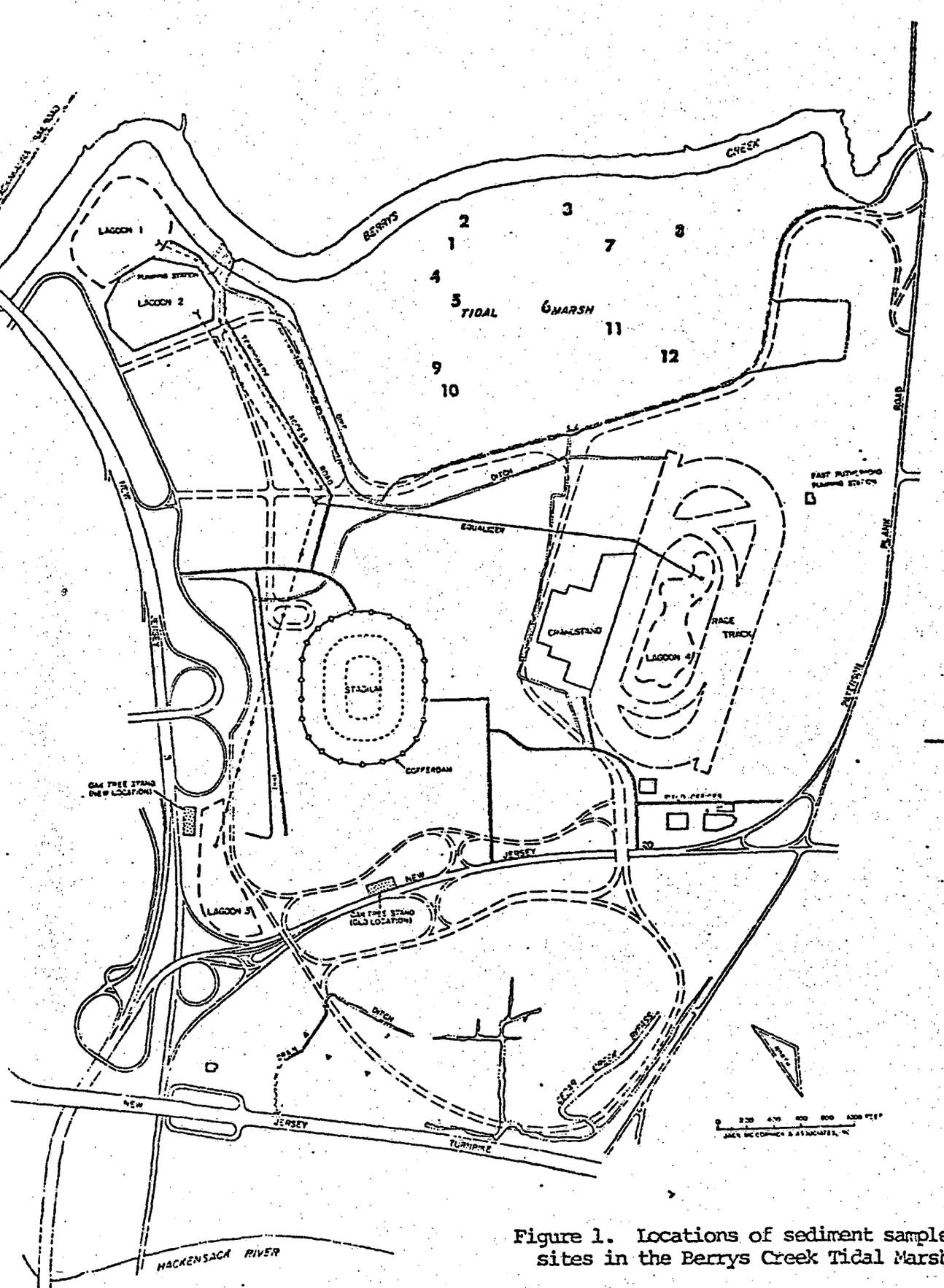

Figure 1. Locations of sediment sample sites in the Berrys Creek Tidal Marsh.

2. The degree of contamination of the tidal marsh varies with depth in the sediment. The heaviest contamination is in the upper 0-6 inches (36.7 to 75.0 mg/kg), but significant contamination extends at least to a depth of 30 to 36 inches (5.5 to 14.6 mg/kg)

3. Within the upper 6 inches of the marsh sediments, contamination was less from 0-2 inches (2.3 to 26.0 mg/kg) than from 4-6 inches (7.0 to 208.0 mg/kg) at five of six stations. This suggests that the source of mercury had been abated so that more recent sediments are not contaminated and tend to mix with and dilute older sediments, or that mercury is mobilized and lost in solution from the upper sediments.

4. Mercury concentrations in the meadow mat, or dead plant remains and live rootstocks, were high (28.4 to 37.8 mg/kg) than concentrations in the upper 2 inches of marsh sediment (2.3 to 26.0 mg/kg). This suggests that the marsh plants absorb mercury and incorporate the metal into their tissues. The presence of significant mercury concentrations at depths from 30-36 inches below the soil surface also could reflect downward translocation of mercury by plant rhizomes and roots.

5. Distribution of mercury in the stream channel sediments was dissimilar to that in the marsh. A high concentration was detected in the upper 0-2 inches, an intermediately high concentration from 2-4 inches, and an "uncontaminated" condition from 4-6 inches. These data suggest that (a) contaminated sediments may be mobile in the channel — that is, they may move in suspension or as a bottom load during storms, and travel from the marsh drainage into Berrys Creek and thence to the Hackensack River; (b) the sediments removed are replaced continuously by sediments eroded from the marsh surface; and (c) there is no downward movement of mercury into the deeper channel bottom sediments because no rooted plants are present. The lack of downward movement also may reflect the fact that the channel bottom is at or slightly below the mean low water line. Under this condition, there probably is no net downward movement of water through the sediment.

The 1972 tests were limited to the upper 6 inches of marsh soil. During most of the public hearing in 1972, only results from Stations 1, 2, and 3 were available, and these generally indicated that the degree of contamination decreased rapidly with depth. Furthermore, information from the regulatory agencies suggested that mercury contamination was known to have been a problem only since about 1940. On the basis of this information, it was assumed that sediments deeper than 6 to 12 inches would be relatively free of pollution. The 1974 test, however, indicated that the sediments are contaminated significantly to a depth of at least 3 feet. In the 165 acre marsh, therefore, a total of 800,000 cubic yards of sediments may be contaminated.

10 mg/kg 800,000 cu yd x 9

Contamination During 1974

Routine monitoring by JMA measured a concentration of [illegible] mg/l mercury in water collected on 17 May 1974 at Receiving Point 1 [illegible] Sports Complex. This value is 136 times as great as the maximum concentration recommended by US-EPA. Concentrations of mercury in water samples collected at Station WHN on 20 May and at Station [illegible]4 on 29 May were 6.8 and 4.6 µg/l, respectively. These two stations are located on streams or ditches that drain directly to the Hackensack River.

On 29 May, a burning substance was observed by Bergen County Health Department personnel on the surface of the West Riser Ditch, a tributary that joins Berrys Creek north of Paterson Plank Road. Other agencies were notified, and an investigation determined that the substance originated from the site formerly occupied by the Wood-Ridge Chemical Company (W-RCC). Apparently a water main was ruptured during site-clearing operations. The water flooded waste chemicals stored on the site and carried them into the stream.

Allegedly, a sample of the oily substance was tested in the US-EPA laboratory at Edison, New Jersey, and the concentration of mercury was found to exceed 10,000 mg/l. Agency personnel reported that the soil at the W-RCC had absorbed a considerable volume of the contaminated waste. Leaching of the material during periods of heavy rainfall may constitute a long-term source of mercury.

III. Potential Sources of Mercury

The source of the mercury which now contaminates the Berrys Creek tidal marsh is not known certainly, but is believed to have originated from operations of the former Wood-Ridge Chemical Company (W-RCC). The W-RCC plant was located on the West Riser Ditch of Berrys Creek, about 1.8 miles north of Paterson Plank Road. The facility allegedly was placed under orders during the middle-1960's, and discontinued operations during the late 1960's.

During 1974, significant concentrations of mercury were detected in the waters of Berrys Creek during May. About 29 May, a spill of oily waste was observed on the West Riser Ditch. A sample of this waste that allegedly was analyzed by the US-EPA contained more than 10,000 ppm mercury. Although State and Federal officials have expressed a belief that mercury spilled on the soil at the W-RCC site may pollute Berrys Creek for many decades, no monitoring currently is under way to detect the concentrations of mercury in Berrys Creek.

A major question that must be answered by this investigation is:
Is there a source (or sources) from which mercury now enters the Berrys Creek tidal marsh?

The potential sources are:

1. Berrys Creek, from the site contaminated by the May 1974 spill;
2. Berrys Creek, detritus or dissolved mercury compounds derived from other contaminated wetlands on the stream;
3. Particulate matter in the atmosphere.

Another question to be answered is: "In the Berrys Creek tidal marsh, what are the mercury sinks?

The most probable sinks are:

1. Mineral sediments;
2. Organic sediments; and
3. The biota (plants and animals).

A particularly important question, insofar as the formulation of a plan for the enhancement of the Berrys Creek tidal marsh is concerned, is: "Does mercury move from the Berrys Creek tidal marsh and, if it does, how is it transported?"

The mechanisms believed to be operable are:

1. The production of soluble methyl mercury;
2. Sediments eroded from the marsh;
3. Plant detritus flushed from the marsh; and
4. Animals that leave the marsh.

IV. Outline of Work and Estimated Budget

1. Stations to be sampled.

Several stations will be established. Approximately 90% of the determinations of mercury, however, will be made on samples collected from four "primary stations" to be located in the Berrys Creek tidal marsh or adjacent waters. At three "secondary stations," samples will be collected on two dates. A pair of stations will be utilized to determine if mercury still is being released from the W-RCC site north of Paterson Plank Road. The third station will be utilized to obtain samples from a marsh that is believed to be relatively free from mercury contamination. As many as ten "tertiary stations" will be sampled one time to identify the area affected by severe mercury contamination.

Primary stations (4)

Station 1. In Berrys Creek tidal marsh.
Station 2. In Berrys Creek tidal marsh.
Station 3. In Berrys Creek, near Sports Complex discharge.
Station 4. In Berrys Creek, near Paterson Plank Road.

Secondary stations (3)

Station 5. Upstream from Wood-Ridge Chemical Company site.
Station 6. Downstream from Wood-Ridge Chemical Company site.
Station 7. In the Saw Mill Creek Wildlife Management Area.

Tertiary stations ($\leq$ 10)

Stations 8 through 17. These will be located in tidal marsh areas located adjacent to Berrys Creek or to the main stem of the Hackensack River.

2. Sediment samples to be tested.

a. Samples to determine depth of contamination.

One test will be made at each of the seven (7) primary and secondary stations to determine the depth to which mercury has entered the soil profile. At each station, one core of soil, to a depth of 8 feet, will be extracted from each of two sites that will be spaced about 5 feet apart. Samples of soil will be taken from each core at points that correspond to nine depths, as follows: 0.5 feet, 1 foot, 2, 3, 4, 5, 6, 7, and 8 feet. The two samples (one from each core) from each of the nine depths will be composited. In total, nine (9) mercury determinations will be made for each of the seven stations.

7 Stations X 9 sediment samples = 63 analyses

b. Samples to quantify sediment transport rate.

Mercury that is present in the sediments of the Berrys Creek tidal marsh either is adsorbed onto clay minerals or exists within particles of organic debris. It is not likely that any significant proportion of the mercury is adsorbed on sands or gravels.

i) The first procedure to be utilized will be a test to determine the relation between grain size and composition of the sediments and the abundance of mercury.

At three stations in the tidal channels, surface sediments will be collected at depths of 0 to 1 cm, 1 to 2 cm, and 2 to 3 cm beneath the surface. The specified depths will be modified if there are obvious changes in the color, texture, or composition of the sediments.

Each sample will be run through a 230 mesh (63 micron) sieve to separate the silt- and clay-size fraction from sand and larger fractions. The silt- and clay-size fraction then will be analyzed by the Bouyoucos method or pipette tests. Each separate size fraction then will be weighed and analyzed for mercury content.

3 stations X 3 depths X 3 fractions = 27 analyses

iia) If mercury is concentrated largely in the silt-and clay-sized fraction of the sediment, the movement of mercury will be determined by monitoring nonfilterable solids. (Alternative)

Regular measurements of suspended sediments in Berrys Creek will be made in Task 3.b. of this investigation. These samples will satisfy the needs of Task 2.b.ii.a. for normal tidal cycles.

To provide information on transport during storm events, additional collections will be made during four storm periods. Two sets of samples will be obtained during the summer season, and two will be made in winter when vegetation cover is at a minimum. Collections will be made at three depths in the water column at three stations.

4 dates X 2 tides X 3 depths X 3 stations = 72 analyses

iib) If the mercury largely is concentrated in the sand-sized on larger fraction of the sediments (not likely), the transport of mercury will be monitored by measuring the rate of movement of the bed load. (Alternative.)

Movements of the bed load in the stream channels will be determined by the use of flourescent minerals (willemite or calcite). These minerals will be ground to the size of the sand grains in the local sediments.

On twelve occasions, the movements of the flourescent grains will be traced throughout a full tidal cycle. These tests will be scheduled to coincide with a variety of lunar tide conditions, and are expected to provide a range of wind conditions. In addition, on one or more occasions (three are budgeted), the movement of flourescent grains will be traced during a major storm event.

These data will be utilized to estimate the total volume of sediment and the amount of mercury transported in the channel bedload annually.

iii) The third procedure in this phase of the investigation is designed to estimate the total movement of marsh sediments during major storms.

Infrequent major storms probably move more sediment from the marsh during a few hours than does the normal ebb and flood of tidal currents throughout the remainder of the year. It is particularly important in this investigation, therefore, to develop an estimate of sediment export, import, and vertical redistribution during storm events. Measurements will be made during four storm events, two of which will be during the growing season and two will be during the winter season.

Two approaches will be employed. To quantify the net change on the marsh surface, permanent sample points will be established and marked with wooden stakes. The relative elevation of the marsh surface at each station will be measured before and after each storm event. Approximately four shallow cores will be taken at each station before and after each storm event. The mercury content in one core will be determined for intervals from 0 to 1 cm, 1 to 2 cm, and 2 to 3 cm. Sediment sizes will be determined for each interval in all four cores.

3 stations X 3 depths X 1 core X 2 times X 4 storms = 72 analyses

During the storm event, water samples will be drawn at three stations from three elevations within the water column at intervals of 2 hours. The total amount of suspended sediment in each sample will be determined, and the sediment size class distribution will be determined. Subsamples of each size class of sediment from collections made on rising tides and on falling tides will be analyzed for mercury concentration.

3 stations X 2 tides X 3 fractions X 4 storms = 72 analyses

The data developed during this phase of the investigation will be used to estimate the total annual movement of marsh sediments during monthly maximum storms. In conjunction with the information from other phases, a total budget for mercury transport by sediments will be developed.

iv) The fourth procedure is a component analysis to determine the exact site of mercury in suspended sediments and in sediments after deposition.

Mercury may remain in a particular sediment component while it is in suspension and after deposition. Alternatively, the sediments may adsorb mercury from solution after deposition, and may act only as a temporary sink.

A scanning-electron microscope with capability for elemental analysis will be utilized to conduct the component analysis. One series of three samples will be analyzed. One sample will be of suspended sediment and two will be of bottom sediments.

c. Samples to identify potential source of mercury.

Grab samples of surficial sediments from the channel bottom at Stations 5 and 6 will be collected on two dates. On each date, samples from several places spaced about 5 feet apart will be composited, and one determination will be made for each station.

2 stations X 1 sediment sample X 2 dates = 4 analyses

d. Samples to assess contamination of other wetlands

Sediments will be collected in 4 inch cores at Stations 8 through 17, which will be located in tidal marsh areas adjacent to Berrys Creek, upstream and downstream from the Sports Complex site, or on the main stem of the Hackensack River. Four cores will be collected in each area. Materials from 0 to 2 inches and 2 to 4 inches in the cores from each station will be composited and then analyzed for mercury.

10 stations X 2 depths X 1 date = 20 analyses

3. Water samples to be tested.

a. Samples to determine to concentration of mercury in the water of Berrys Creek at the marsh.

Samples of water will be collected from Berrys Creek at Stations 3 and 4 two times during each month during a full year. One sample will be taken on each date immediately before high water, and a second sample will be taken immediately before the succeeding (or preceding) low water.

These samples will be filtered to remove detritus and other suspended solids. The concentration of dissolved mercury in the filtered water then will be determined.

2 stations X 2 water samples X 12 dates = 48 analyses

b. Samples to determine the concentration of mercury in detritus and other suspended solids in Berrys Creek.

Plankton nets will be suspended in Berrys Creek at Station 3 and 4 two times during each month during a full year. One sample will be collected by suspending a net at each station during a full rising tide. A second sample will be collected by suspending a net at each station during a full falling tide. (As an alternative, water will be pumped from each station and drained through a net during a full tidal rise and a full tidal fall.) The collected solids will be drained on a centrifuge, and the concentration of mercury will be determined. The concentration will be expressed on an oven-dry weight basis.

2 stations X 2 sediment samples X 12 dates = 48 analyses

c. Samples to determine the concentration of mercury in the water of Berrys Creek at the suspected source of contamination.

Samples of water will be collected from Berrys Creek at Stations 5 and 6 on one date each three months (4 times during the year). One sample will be taken on each date immediately before high water, and a second sample will be taken immediately before the succeeding (or preceding) low water. These will be coordinated with samples collected for Task 3.a. The water will be filtered, and the concentration of mercury will be determined.

2 stations X 2 water samples X 4 dates = 16 analyses

d. Samples to determine the concentration of mercury in particulates trapped by rain water.

An automatic rain gage will be used to collect composite samples of rain water during each month for a full year. One composite sample will be analyzed each month.

1 station X 1 water sample X 12 dates = 12 analyses

4. Plant samples to be tested.

a. Samples of common reed grass from Berrys Creek Tidal marsh.

Samples of common reed grass (*Phragmites communis*), which forms the predominant vegetation on the marsh, will be collected at or near Stations 1, 2, 3, and 4 during the prime growing season (August), at the end of the growing season (mid-October), during the winter (January), and in spring (May). Each sample will be divided into five subsamples, as appropriate (roots, rhizome, culms, leaf blades, and flowers/seeds). The oven dry weight of each subsample and the concentration of mercury in each subsample will be determined.

4 stations X 5 plant subsamples X 4 dates = 80 analyses

b. Samples of common reed grass from the uncontaiminated tidal marsh.

As a control for determination made in task 4. a. samples of common reed grass will be taken during August from Station 7 in the uncontaminated tidal marsh. The material will be sorted and processed in the same manner as that collected for task 4. a.

1 station X 5 plant subsamples X 1 date = 5 analyses

c. Samples of cattail and cordgrass from Berrys Creek tidal marsh.

Cattail and low-water cordgrass occupy small areas in Berrys Creek tidal marsh. To provide information on the relative absorption of mercury by these plants, two samples of each species will be taken in August, October, January, and May from appropriate stands near Station 3 or 4. This information will be useful for planning possible marsh vegetation management strategies. Material will be sorted and processed in the same manner as that collected for Task 4. a.

2 species X 2 samples X 5 plant subsamples X 4 dates = 80 analyses

d. Samples of cattail and cordgrass from the Sawmill Creek tidal marsh.

Samples of cattail and low-water cordgrass will be collected from one station in the Sawmill Creek Wildlife Management Area. The material will be sorted and processed in the same manner as that collected for the Task 4. a. The results of these tests will provide control data for comparison with the information acquired in task 4. a.

2 species X 5 plant subsamples X 1 date = 10 analyses

e. Plant litter and detritus samples from Berrys Creek tidal marsh.

Dead plant material will be collected from the marsh surface during November, January, and March at one place near each of the primary stations (Stations 1, 2, 3, and 4). This material will be rinsed to remove sediments, oven dried, and analyzed to determine the concentration of mercury.

4 stations X 1 plant sample X 3 dates = 12 analyses

5. Samples of fish and wildlife

a. Samples of killifish from Berrys Creek tidal marsh.

During May, August, November, and February, two killifish will be collected each day for five consecutive days (10 fish) from channels in Berrys Creek tidal marsh. The mercury content of each fish will be determined.

10 fish X 4 dates = 40 analyses

b. Samples of killifish from uncontaminated marsh.

During August, two killifish will be collected each day for five consecutive days at Station 7 (10 fish). They will be processed as in task 5. a.

10 fish X 1 date = 10 analyses

c. Samples of muskrats from Berrys Creek tidal marsh.

Ten muskrats will be collected from the Berrys Creek tidal marsh. To determine the tissue(s) in which mercury concentrates, samples of the brain, kidney, liver, muscles, fat and whole blood from four muskrats will be analyzed separately for mercury content. The two principal concentrating tissues of six other muskrats will be analyzed.

4 animals X 6 tissues = 24 analyses
6 animals X 2 tissues = 12 analyses

d. Samples of muskrats from other areas in the Hackensack Meadowlands.

Ten muskrats will be collected from each of three other sites in the Meadowlands District (Anderson Creek, Sawmill Creek, and W-RCC Site). The two principal concentrating tissues in each of these specimens will be analyzed. These data will indicate the range of variability in the body loads of muskrats at various distances (0 to 6.6 miles) from the suspected mercury source.

10 animals X 3 sites X 2 tissues = 60 analyses

e. Samples of muskrats from an uncontaminated marsh.

As a control, ten muskrats will be collected from an uncontaminated wetland about 40 miles west of the Meadowlands. The two principal concentrating tissues will be analyzed in each specimen.

10 animals X 2 tissues = 20 analyses

6. Vegetation standing crop analyses.

Once each month throughout the year (12 dates), all live plants and all recently fallen dead plant material will be collected from 25 plots, each 0.25 square meter, spaced randomly in Berrys Creek tidal marsh. These data will provide estimates of the total amount of living and recently dead plant material contained in the marsh. In conjunction with plant tissue sample analyses (Section 4), they will permit an estimation of the total amount of mercury present in the vegetation and the seasonal flux of mercury.

7. Project coordination and completion

	Hours	Loaded Rate	Total Salary
Coordination and interim analysis of data			
1 day/month X 12 months, Roginski	96	$ 20.01	$ 1,921
1 day/month X 12 months, Bleiweiss	96	14.56	1,398
0.5 day/month X 12 months, Dawson	72	11.53	830
			$ 4,149
Final analysis and report preparation			
Bleiweiss literature review	120	14.56	1,747
Bleiweiss analysis and finalization	80	14.56	1,164
Schmid (wildlife and fish)	80	22.10	1,768
Brown (Limnology)	16	25.22	404
Hirsch (sediments)	40	21.25	850
Roginski (heavy metals, water)	80	20.01	1,601
McCormick	40	40.50	1,620
Typing (Dyer)[1]	120	11.48	1,378
			$10,532
Meetings with NJ-DEP, HMDC, US-EPA US-fish and wildlife, US-NOAA, Corps, SCS (2 State Agencies, 5 Federal Agencies)			
Estimated "small meetings" with HMDC, NJ-DEP, Feds Total of 15 meetings, 1.0 day each (including travel)			
McCormick	80	40.50	3,240
Roginski	96	20.01	1,921
Bleiweiss	120	14.56	1,747
			6,908
Group meetings (all agencies together) Total of 2 meetings, 1.5 day each (with travel)			
McCormick	24	40.50	972
Roginski	24	20.01	481
Bleiweiss	24	14.56	350
			1,803
Report production[1]			7,500
			$ 30,892

[1] The report will contain 40 pages of typed tables to display all mercury data and standing crop measurements. It will have 5 other tables for synthesis, 30 photographs (17 stations, 13 others), 15 figures (maps, graphs, diagrams) and 100 pages of text. Estimated printing cost (per copy) is $75. say 100 copies $7,500.

8. Summary of mercury analyses to be made on various media.

Task	Sediments	Water	Plants	Animals
2. a.	63			
2. bi.	27			
2. biia.	72[a]			
2. biib.	0[a]			
2. biii.	72			
2. biv.	0			
2. c.	4			
3. a.		48		
3. b.	48			
3. c.		16		
3. d.		12		
4. a.			80	
4. b.			5	
4. c.			80	
4. d.			10	
4. e.			12	
5. a.				40
5. b.				10
5. c.				36
5. d.				60
5. e.				20
6.			0	
Totals	214	76	187	166
	(286)			

[a] Alternatives; either 2. b. ii. a. or 2. b. ii. b. will be implemented.

V. Schedule of Estimated Costs for Mercury Budget Investigation

Work tasks are numbered to correspond with sections of the text. All salaries are based on 1975 scales. A contingency line is included at the bottom of the schedule to account for salary increases and inflationary increases in direct costs during 1976 as well as minor errors in estimation of time requirements.

Task	Mercury Analyses	Galluzzi Hours	Other Hours	Loaded Salary[a]	Other Costs	Total
2a	$ 1,575[e]	24		294	$ 2,725	$ 4,594
2b	2,475[e]	520	412[b]	15,085	2,550	20,110
2c	100[e]	8		98		198
2d	500[e]	40	16[c]	636		1,136
3a	864[f]		32[c]	292		1,156
3b	1,200[e]	96		1,176		2,376
3c	288[f]	16	8[c]	269		557
3d	216[f]	19.2		235	750	1,201
4a	4,000[g]	80		980		4,980
4b	250[g]	16		196		446
4c	4,000[g]	64		784		4,784
4d	500[g]	16		196		696
4e	600[g]	24		294		894
5a	2,400[h]	40		490		2,890
5b	600[h]	16		196		796
5c	2,160[h]	16		196		2,356
5d	3,600[h]	16		196		3,796
5e	1,200	16		196		1,396
6	0	192		2,400	840	3,240
7	0	0	1,208[d]	23,392	7,500	30,892
Subtotals	26,528			47,601	14,365	79,494
Mileage, vehicles, tolls, per diem on travel (based on 63 trips, two men, overnight)						7,000
						86,494
Contingency for 1976 costs (20%)[j]						17,300
						$ 103,794
				Round to:		$ 104,000

[a] Contract multiplier for 1975 is 2.25

[b] Hirsch

[c] King

[d] Various persons, see detail in text.

[e] Sediment samples are $25 per analysis

[f] Water samples are $18 per analysis

[g] Plant samples are $50 per analysis

[h] Animal samples are $60 per analysis

[i] Estimated cost is based on alternative 2biib.

[j] Billings will reflect actual costs and contract multiplier during 1976.

II. Existing Mercury Concentrations in Berrys Creek Tidal Marsh

Analyses of sediment samples collected from the Berrys Creek tidal marsh on 5 June 1972, revealed that the concentrations of mercury and other heavy metals were unusually high (Draft Assessment, 1972, page VII-II).[1] Additional samples were collected on 15-16 June 1972, and analyses of those samples substantiated that mercury concentrations ranged 2.3 to 26.0 mg/km (or parts per million) in the upper 0-2 inches of marsh sediment, and from 7.0 to 208.0 mg/km at a depth of 4-6 inches (Table 1). Samples from the bottom of a drainage channel indicated a concentration of 74.0 mg/kg from 1-2 inches, 38.0 mg/km from 3-4 inches, and 0.3 mg/kg from 4-6 inches (Table 1).

Additional samples collected from the Berrys Creek tidal marsh on 21 February 1974 were analyzed to validate or correct the previous results. The 1974 tests confirmed the 1972 finding that the Berrys Creek marsh is heavily contaminated with mercury. Concentrations measured during February ranged from 5.5 to 75.0 mg/km dry weight of soil (Table 1).

Unpolluted sediments contain approximately 0.05 mg/kg.[2] The marsh deposits contain 46 to 4160 times this much mercury. In studies of sediments from San Francisco Bay, the southern California coast, New Haven Harbor (Connecticut), the Murderkill River and St. Jones River (Delaware), and the LaHave River and estuary (Nova Scotia), concentrations of mercury were found to range from 0.02 to 4.70 mg/kg.[3] The concentration of mercury in Berrys Creek tidal marsh, expressed as the mean of the 30 analyses available, is 34.13 mg/kg, or more than seven times as great as the highest concentration reported in these previous studies.

Implications Of The Results

1. The degree of contamination varies from place to place throughout the marsh, but all stations are significantly polluted with mercury.

---

[1] Jack McCormick & Associates. 1972. Draft assessment of the potential environmental impact of the construction and operation of a New Jersey Sports and Exposition Complex at a site in East Rutherford, Bergen County, New Jersey. Prepared for the New Jersey Sports and Exposition Authority variously paged, 316 pp.

[2] Klein, D. H. 1972. Some general and analytical aspects of environmental mercury contamination. Journal of Chemical Education 49:7-10

[3] Lepple, F. K. 1973. Mercury in the environment. A global review including recent studies in the Delaware Bay Region. University of Delaware, College of Marine Studies, 75 pp.

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2-SA-ERI

August 13, 1975

Rovic Construction

Henry Gluckstern
Water Enforcement Branch
Enforcement Division
EPA, Region II
26 Federal Plaza
New York, New York 10007

I received the letter from Rovic which you referred to. The removal of only 1½% contaminated soil as referred to in Mr. Gannon's memo is technically not acceptable in my opinion. Moreover, the supposed impermeable peat layer has been penetrated on numerous occasions so as to make the bottom seal layer non-existent.

I do not have any record of the phone conversations that you have had with Rovic personnel, but certainly their proposal does not satisfy my technical requirements.

Michael V. Polito
Emergency Response & Inspection Branch

cc: W. Librizzi
D. Longstreet

SA/ERB:MVPolito:nde:Bldg.209:x598:8/13/75

CONCURRENCES

SYMBOL ▶	SA/ERB							
SURNAME ▶	POLITO							
DATE ▶								

EPA FORM 1320-1

OFFICIAL FILE COPY

JMA
Jack McCormick & Associates, Inc.
860 Waterloo Road
DEVON, PENNSYLVANIA 19333

Phone: (215) 687-9130

LETTER OF TRANSMITTAL

DATE: 6 August 1975 | JOB NO:

ATTENTION: cc: G. Taylor, A. Foley

RE: M. Boussu, R. DelTufo; J. Pitney, C. Durfor; J. Ostroski, A. Linkletter; F. Werneke, R. Lippson; J. Krumpe, R. Parsky

New Jersey Sports & Exposition Authority

Gateway One

Newark, N. J. 07102

GENTLEMEN:

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1	August 75		A Mercury Budget for Berrys Creek Tidal Marsh Proposed Plan and Budget

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☒ For review and comment ☐ _____

☐ FOR BIDS DUE _____ 19_____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS The enclosed "Proposed Plan and Budget" for an investigation to describe the mercury Budget for Berrys Creek Tidal Marsh has been submitted to the New Jersey Sports Authority. I will appreciate your comments on the proposed work plan and any suggestions you may wish to offer to improve the investigation. Please indicate any work that you believe would be superfluous, as well as any omissions that you detect. Copies of any information you have that would be useful to this investigation will be appreciated. Also, if any activity of your agency could be coordinated with this investigation, please contact me as soon as possible.

COPY TO _____

SIGNED: Jack McCormick

If enclosures are not as noted, kindly notify us at once.

A MERCURY BUDGET FOR BERRYS CREEK TIDAL MARSH
PROPOSED PLAN AND BUDGET

PREPARED FOR:

THE NEW JERSEY SPORTS AND EXPOSITION AUTHORITY
GATEWAY 1
NEWARK, NEW JERSEY

JACK McCORMICK & ASSOCIATES, INC.
360 Waterloo Road
Devon PA 19333

CONTENTS

JACK McCORMICK & ASSOCIATES, INC.
ECOLOGICAL CONSULTANTS
260 WATERLOO ROAD
DEVON, PENNSYLVANIA 19333
(215) 687-9130

August 5, 1975

Mr. John Krumpe
Executive Director
New Jersey Sports and Exposition Authority
Gateway 1
Newark, New Jersey

Dear Mr. Krumpe:

Enclosed herewith is a proposed plan and estimated budget for an investigation designed to define A Mercury Budget for Berrys Creek Tidal Marsh. Because field sampling will require a full year, the overall time-frame for this investigation is approximately 16 months. I recommend that the first samples be collected during late August 1976 at a time that will coincide with the peak standing crop of marsh grasses.

This investigation originated with tests made by JMA during 1972 in studies made to support the environmental assessment of the original plans for the Sports Complex. Those tests first revealed the local mercury problem. Additional tests during February 1974 indicated that the contamination extended deeper than originally believed. During May and June 1974, a pollutant spill upstream introduced more mercury to the system, and suggested that mercury releases may continue for years or decades.

Recommendation 9 of the Hearing Officer's Report requires the Authority to treat the contaminated Berrys Creek Tidal Marsh. The United States Army Engineering District, New York, has claimed jurisdiction, and has notified the Authority that a Federal permit will be required for any work on the marsh. This proposed investigation is designed to obtain the information necessary to formulate an adequate plan for the enhancement of the area, and to explain the basis for the plan to all persons who will be involved in the State and Federal environmental reviews.

Funds adequate to cover the expenses of this investigation were included in the budget published in the bond prospectus. Those funds originally were intended for the marsh-scraping process, but that technique now is known to be inadequate.

This letter is to request your authorization to proceed with the investigation as outlined. Insofar as possible, staff assigned to monitoring operations will conduct field sampling. Every effort to economize will be made without jeopardy to the quality of the scientific work.

Sincerely,

Jack McCormick, Ph.D.
President

/vmc

ENCLOSURE

2

A MERCURY BUDGET FOR BERRYS CREEK TIDAL MARSH

Proposed Plan and Budget

I. Introduction

Proposed construction will eliminate approximately 35 acres of the total of 165 acres in the Berrys Creek tidal marsh in the Borough of East Rutherford, Bergen County, New Jersey. As partial mitigation for the loss of fish and wildlife habitat, and to assure that the delicate environmental balance of the Hackensack Meadowlands will be protected, the New Jersey Sports and Exposition Authority (NJSEA) is required to enhance the quality of 130 acres of the Berrys Creek tidal marsh. The marsh now is contaminated grossly with mercury that apparently originated from former industrial discharges.

During the spring of 1975, representatives of NJSEA met with personnel from the New York District of the Corps of Engineers, the Boston Region of the United States Fish and Wildlife Service, the New York Region of the United States Environmental Protection Agency, the Gloucester Region of the National Marine Fisheries Service, the Hackensack Meadowlands Development Commission, and the New Jersey Department of Environmental Protection. At this meeting, the NJSEA agreed, as a condition for a permit to construct embankments, that a plan for the enhancement of the Berrys Creek tidal marsh will be submitted to the New York District no later than 18 months after the issuance of a permit. The plan is to be reviewed, and must be approved, by the State agencies with jurisdiction before it is submitted to the Federal agencies.

The purpose of this Proposed Plan and Budget is to implement the necessary field investigations to determine the mercury budget of the marsh and the ultimate fate of the mercury. All contemporary sources of mercury are to be identified; all mercury sinks will be located and described; and all mechanisms by which mercury is transported will be targeted and quantified. Only with such information can an adequate plan for enhancement be formulated and explained to the satisfaction of all persons who will be involved in the environmental review.

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Rovic Construction Company, Inc.
911 Bergen Avenue
Jersey City, New Jersey
Registered Agent - Robert M. Wolf
201-653-6300

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
POST OFFICE BOX 2809
TRENTON, N. J. 08625

On August 5,1975 investigation by representatives of this Department revealed that your company removed and stockpiled mercury contaminated soil on your property. Said property is located on Lot 10, Block 229 Wood-Ridge, New Jersey.

This removal and stockpiling is in violation of an agreement reached among NJDEP, USEPA, and Rovic Construction Company, Inc. on January 10,1975. This activity is also in violation of N.J.S.A. 58:10-23.1 et seq., N.J.S.A. 23:5-28, and N.J.A.C. 7:26-1 et seq. You are hereby ordered to cease such removal and stockpiling and to completely cover and seal all removed and stockpiled material to prevent any waters from contacting said material. You are hereby further ordered to cover and seal any and all excavated areas to prevent any waters from contacting said excavated areas.

Any removal and stockpiling must be done in compliance with all applicable laws and regulations of the Department including the acquisition of all necessary permits.

Contact Mr. David G. Longstreet of this Department (telephone 609-292-5500) as soon as possible to discuss this matter.

Rocco Ricci, Director
Division of Water Resources
New Jersey State Department of
Environmental Protection

c.c.: EPA (NYC)

EPA (Edison) —

Division of Fish, Game and Shell Fisheries

Pete Lynch

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

67

REPLY TO ATTN OF: 2-SA-ER

DATE: August 12, 1975

SUBJECT: Site Visit to Ventron

TO:

File

On August 11, 1975, I visited the Ventron site with Dave Longstreet of the NJSDEP.

At the construction site, Rovic has begun scraping topsoil from the back part of the property and stock piling it along the northern property line. I have not been able to determine the depth to which these scrapings have been made.

Mr. Longstreet advised me that the Rovic Construction Company had been sent a stop order by telegram on Friday, August 8. He advised that Rovic had violated several NJSDEP laws, including certain solid waste regulations.

At the site, I met Mike Scarpia, Construction Superintendent. Since I arrived at the construction site before Mr. Longstreet, Mr. Scarpia asked if anything was wrong. I advised him I was surprised that Rovic had proceeded with scraping without letting the EPA know. He said that he wanted him to stop he would want some kind of written notice. I advised him I had no basis for stopping him (and in my mind I do no know if I should). I was most concerned about a drainage ditch that they had constructed adjacent to the new warehouse and leaching of mercury by this water. I subsequently took a sample of this water for mercury analysis.

When Dave came on site, he ordered Mr. Scarpia to stop all actions in the rear of the property, and subsequently gave this order to Messers. Gannon and Wolff of Rovic by telephone.

On August 12, Mr. Gluckstern returned my phone call. I advised Mr. Gluckstern of my observations and also referred him to paragraph 9 of the August 8, 1974 Memorandum of Understanding. I relayed my feelings to Mr. Gluckstern that the State actions may, at this point, not be consistent with EPA's actions and that we should use caution in supporting the State position. While I am highly suspicious of Mr. Wolff and Rovic's actions, I felt we can not prohibit the scraping. What we should require is proof of depth removal and subsequent fulfillment of Memorandum of Understanding obligations.

Mr. Faille of the NJSDEP happened to call in and I asked him to remind Dave of this Memorandum of Understanding and to consider State actions in view of the Understanding. I suggested he contact Karl Birns and Karl and Dave reach a departmental viewpoint.

Henry Gluckstern to contact Wolff and NJSDEP attorneys.

Michael V. Polito
Emergency Response & Inspection Branch

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY – REGION II
SURVEILLANCE & ANALYSIS DIVISION
EDISON, NEW JERSEY 08817

Name of Unit and Address:	
	Mike Polito, Emergency Response Branch. S&A Division, Edison, NJ 08817

Sample Number	Number of Containers	Description of Samples
39999	1	One quart bottles of liquid taken from Ventron site - drum [illegible]

Person Assuming Responsibility for Sample:	Time	Date
Mike Polito	3:00	8/1/7[illegible]

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody
39999	M.V. Polito				

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody

AFFILIATED WITH

ROVIC CONSTRUCTION CO., INC.

911 BERGEN AVENUE • JERSEY CITY, NEW JERSEY 07306 • (201) 653-6300 • N.Y. (212) 962-6840

Rcd 8/13

66

August 11, 1975

Mr. David Longstreet
Oil & Hazardous Materials Program
State of New Jersey
Department of Environmental Protection
John Fitch Plaza
P. O. Box 2807
Trenton, New Jersey 08625

Re: Wood-Ridge Development
Lot 10, Block 229
Park Place East
Wood-Ridge, New Jersey

Gentlemen:

Pursuant to our afternoon conversation of Tuesday, August 5th, please consider the following.

It is our intent to excavate the high concentrate areas of mercury on the site, remove same to the adjacent railroad siding and stockpile same for removal in sealed gondola cars to the International Recycling Corporation processing plant in Nevada. For clarification purposes, we are referring to high concentrate as everything above 1½%. During the stock-piling operation, the piles would be protected from the weather by means of polyethelene covers. The stockpiled material will be on the site approximately one month.

The low concentrate areas, i.e., those below 1½%, will be entombed within the confines of the building foundations. Whatever little contaminant remains in the ground, we feel will cause no further problem with seepage, etc. due to the fact that the bulk of the site will be paved with impervious material.

We trust that this plan meets with your approval and anticipate hearing from you within a few days regarding the meeting which you mentioned to me on August 5th.

Yours truly,

Lloyd R. Ganon

Lloyd R. Ganon
Vice President

LRG:ic
cc: Mr. Michael V. Polito, Chemist, U.S. EPA ✓
Henry Gluckstern, Esq., U.S. EPA
Mr. William Librizzi, U.S. EPA
James J. Maguire, Esq., N.J.D.E.P.
Mr. Robert M. Wolf, President

2-SA-ER

August 11, 1975

Phone Call from Robert Wolff

65

File

Mr. Wolff called in reference to the following at 4:20 p.m. on 8/5/75:

1. Wants documentation to assist him in suit against Ventron

2. Wanted to know why mercury problem with Ventron site was not attended to, and

3. Wants to proceed with construction work.

On the subject, I advised of letter from Meyer Scolnick and legal basis of that letter. If he wished to pursue any action, he must contact our legal people and State of New Jersey.

On the subject of release of our documents to assist in possible legal action against Ventron, I suggested he contact legal people for documents because: (a) they have complete file; and (b) Freedom of Information requirements and protection of privacy.

Michael V. Polito
Emergency Response & Inspection Branch

SA/ERB:MVPolito:nde:Bldg.209:x598:8/11/75

CONCURRENCES

SYMBOL	SA/ERB							
SURNAME	POLITO							
DATE								

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64

August 5,1975

Rovic Construction Company, Inc.
911 Bergen Avenue
Jersey City, New Jersey 07306

Re: Park Place East
Wood-Ridge, New Jersey

Attention: Mr. Robert Wolff

Gentlemen:

Mr. Lloyd Canon of your office telephoned to inform us of your plans to remove the mercury contaminated soil from your property in Wood-Ridge.

At the meeting on January 10,1975 at the USEPA's offices in New York City all parties had agreed that no work would be done on the site at all, until a final proposal was received from Rovic Construction Company. After the receipt of that proposal a formal agreement would then be entered into by all parties (USEPA, NJDEP, Rovic Construction).

Until such an agreement is reached any work would be considered to be in violation. You are hereby notified to terminate all such activities pending the adoption of a formal agreement.

Sincerely:

David Longstreet
Office of Special Services

c.c.: M.V. Polito, EPA II (Edison, N.J.) —
H. Gluckstern, EPA II (N.Y. .)
P. Lynch

E23:G6

AtlanticRichfieldCompany

Synthetic Crude and Minerals Division
Resource Development Group - U.S.
1500 Security Life Building
Denver, Colorado 80202
Telephone 303 266 3741

H. S. McAlister
Exploration Manager
Uranium and Other Minerals

Rcd 8/4

July 25, 1975

63

Mr. Michael V. Polito
Emergency Response & Inspection Branch
U. S. Environmental Protection Agency
Region II
Edison, New Jersey 08817

Dear Mr. Polito:

On July 8, 1975, you wrote to Mr. William Jud with respect to certain relationships which might exist between Atlantic Richfield Company and Rovic Construction Company. I want to apologize for our delayed response to your inquiry. Mr. Jud is presently on a field assignment and your letter traveled a circuitous route before arriving in my hands.

Atlantic Richfield Company has no interest or participation in any project or lands of the Rovic Construction Company. Mr. Robert W. Wolf, representing Rovic Construction, did visit with Mr. Jud. Subsequently, Mr. Wolf wrote to our company inquiring if we had any interest in a mercury recovery project on lands they wish to develop in New Jersey. Since we are not in that rather specialized business and do not have the required expertise, we did not consider the matter further. Mr. Wolf was informed of this by a letter from Mr. F. C. Witmer on July 3, 1975. Should you desire this to complete your file, a copy is attached.

I trust this will clear up any misinformation which may have reached your office.

Yours truly,

H. S. McAlister

H. S. McAlister

Attach.

HSM:cr

cc: Mr. F. C. Witmer

AtlanticRichfieldCompany
Synthetic Crude and Minerals Division
Resource Development Group - U.S.
1500 Security Life Building
Denver, Colorado 80202
Telephone 303 266 3741

F. C. Witmer
Manager

July 3, 1975

Mr. Robert M. Wolf, President
Geo. J. Wolf Realty Co.
911 Bergen Avenue
Jersey City, New Jersey 07306

Dear Mr. Wolf:

Your letter of June 25th to Mr. Bond has been referred to me. You will recall your offer to work with us on some basis toward the recovery of mercury at Wood-Ridge, New Jersey.

After reviewing all the facts available to us, we have decided not to pursue this potential venture further at this time. However, we sincerely appreciate the opportunity to review the venture and your cooperation in providing us data. We will maintain a file on our contact with you should our position change.

I am enclosing the Hazen report.

Very truly yours,

F. C. Witmer

FCW/bb

Enclosure

CC: H. E. Bond
K. S. Canfield

2-SA-ER July 22, 1975

Request for Information from Atlantic Richfield Company

62

Henry Gluckstern
Water Enforcement Branch
Enforcement Division
EPA, Region II
26 Federal Plaza
New York, New York 10007

It has been approximately two weeks since I wrote to William Jud of the Atlantic Richfield Company. May I suggest you send, under your title, a second request for information. I have taken the liberty of writing a suggested letter (attached). Let me know what you think.

I also think that it might be a good idea to contact the Department of Labor concerning OSHA requirements for the site and arranging for a site inspection. Please let me know if there are any legal complications regarding this.

Michael V. Polito
Emergency Response & Inspection Branch

Attachment

SA/ERB:MVPolito:nde:Bldg.209:x598:7/22/75

CONCURRENCES

SYMBOL ▶	SA/ERB	SA/ERB						
SURNAME ▶	POLITO	LIBRIZZI						
DATE ▶	7/22							

EPA FORM 1320-1

OFFICIAL FILE COPY

DRAFT

DATE

Mr. William Jud
Atlantic Richfield Company
1500 Security Life Building
Denver, Colorado 80202

Dear Mr. Jud:

Mr. Polito of our Region II staff had written to you concerning the requirements on your proposal to the Rovic Construction Company for the reclamation of mercury at their construction site.

To date, he has not received a reply from you or your company. We would deeply appreciate receiving this information as soon as possible. If there are any other ~~contacts~~ persons within your company that we should contact that could expedite this request, please so advise.

Your cooperation in this matter would be appreciated.

Sincerely yours,

Henry Gluckstern
Attorney
Water Enforcement Branch
Enforcement Division

61

2-SA-ER

July 23, 1975

News Article - Ventura Hg.

Henry Gluckstern
Water Enforcement Branch
Enforcement Division
EPA, Region II
26 Federal Plaza
New York, New York 10007

Attached is an article which appeared in The Record, July 21, 1975.

Thought you would like to see.

Michael V. Polito
Emergency Response & Inspection Branch

Attachment

SA/ERB:MVPolito:nde:Bldg.209:x598:7/23/75

CONCURRENCES

SYMBOL ▶	SA/ERB	SA/ERB						
SURNAME ▶	POLITO	LIBRIZZI						
DATE ▶								

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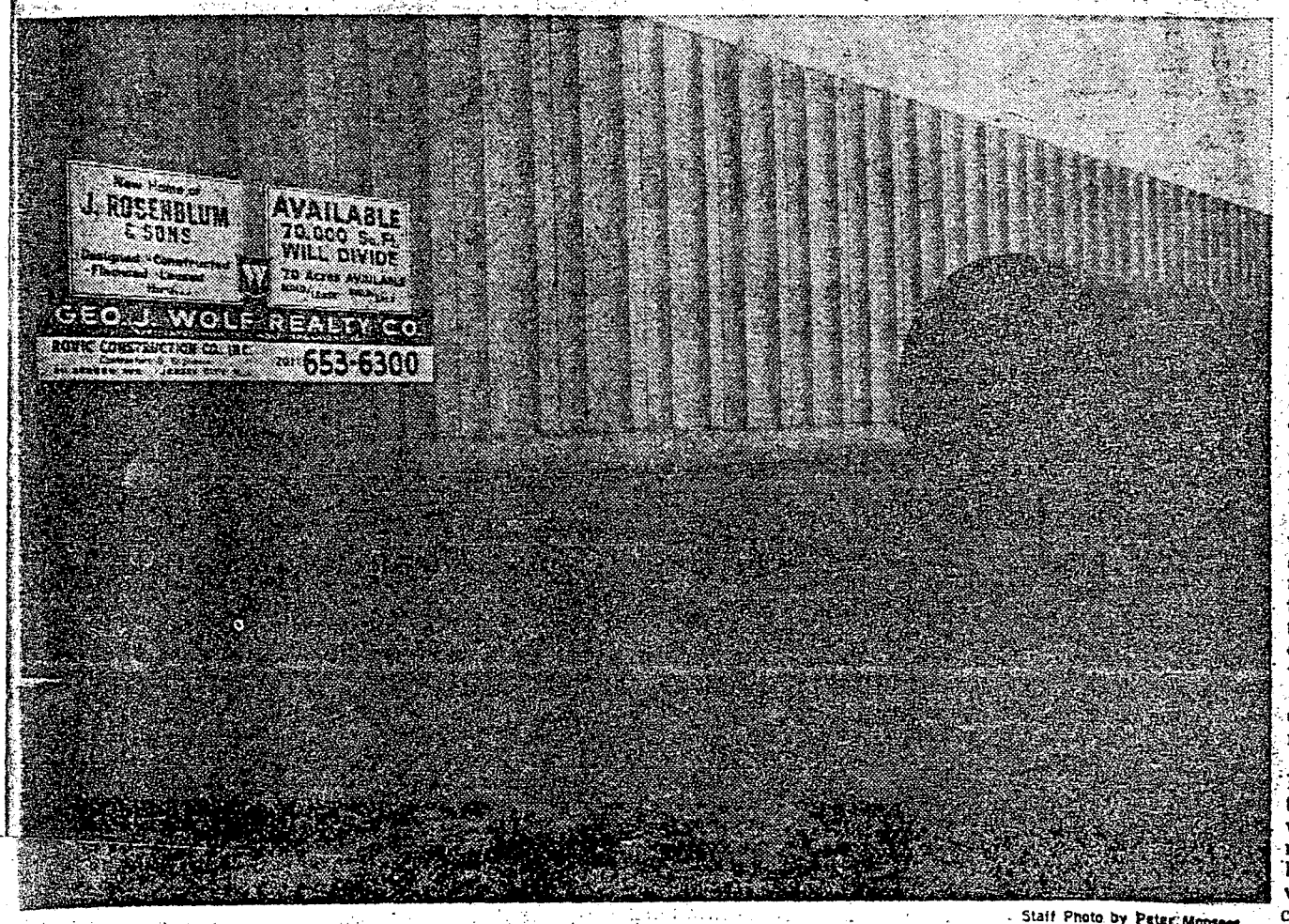

Staff Photo by Peter Monsees

This trim concrete building stands on the site of the old Wood-Ridge Chemical Co. factory, the suspected source of the mercury now tainting the soil of the Berry's Creek marsh. The property borders a Berry's Creek tributary.

The mess at Berry's Creek

From Page A-1

were far worse than anyone had imagined. Poisonous mercury, which they had thought was confined to the top six inches of soil, had sunk down at least three feet and probably much more. Plans to scrape the poisoned soil off the top of the marsh went down the drain.

Also troubling were the unanswered questions. Had the mercury begun to work its way through the food chain, from the water into the plants and then into the muskrats and other higher mammals? Was the mercury seeping out of the sponge-like marsh into the rest of the Hackensack River system? And above all, where had the mercury come from? No one knew.

Today, three years after the Sports Authority first learned of the marsh's condition, the questions remain unanswered. Jack McCormick and Associates is drawing up an outline for an 18-month study of the marsh and has trapped several muskrats for study. The muskrats' tissue will be analyzed for traces of mercury.

"Mercury tends to collect in the roots of plants," says McCormick. "During the winter, the muskrats dig into the roots for food. I think it's a very good bet that we'll find mercury in the muskrats."

Mercury is one of the most stubborn and insidious poisons known to man. It accumulates slowly in the body, building up over weeks and months and combining mostly with blood, nerve, and liver cells. When enough traces of mercury have built up, the symptoms of mercury poisoning begin to appear. Sometimes it may be a loss of the sense of touch in hands or feet. Sometimes it is deafness or blindness. Sometimes it is emotional instability, which has given mercury poisoning its nickname, the Mad Hatter's disease — the metal once was used in the manufacture of hats.

Mercury also is able to pass from the womb of a mother to a fetus she carries. When this happens, the fetus may be born mentally retarded or with cerebral palsy, a form of brain damage that disrupts the normal motion of muscles. In Japan, 46 people died after eating shellfish taken from Minamata Bay, which had been polluted with mercury from a plastics factory.

Effects unknown

No one knows what effect mercury may have on muskrats or other mammals other than man. The best guess is that it is as dangerous to them as it is to us.

Fortunately, there is no evidence that anyone has been poisoned by shellfish or other meat taken from the marsh. Ironically, the chronic pollution of Berry's Creek may have prevented such a tragedy, simply because no one would think of eating anything that had been fished out of Berry's Creek.

These days, though, the water in Berry's Creek is getting cleaner. Most of the industrial discharges have been stopped, and there is more oxygen in the creek than there has been in many years. But because of the stubborn mercury, Berry's Creek may never be safe again.

Mercury is an element, one of the basic building blocks of the planet Earth. It cannot be broken down into anything else, and it cannot easily be converted into anything less toxic. Once it gets into a marsh, as it has in Berry's Creek, it is almost impossible to get it out.

Nevertheless, the Sports Authority has been ordered to restore the marsh for use as an environmental education center. Last year, the authority's environmental consultants called a meeting of marsh experts to discuss alternatives for cleaning up the mess.

'I don't know'

"The outcome of the meeting," says head consultant Jack McCormick, "was, 'My God, I don't know what to do about it.'"

McCormick and his men drew up a list of 12 alternatives, ranging from doing nothing to actually covering the entire mess with a giant sheet of plastic, nylon, or rubber and starting over again. One of the alternatives was paving over the marsh, which might be described as destroying the marsh in order to save it.

Other alternatives suggested included dredging and refilling the marsh (estimated cost: up to $2.3 million), stripping the vegetation and covering the 130 acres with sand and gravel (cost: up to $3.4 million), and using chemicals to immobilize or collect the mercury. All of the methods shared an important drawback: none of them has been tested outside a laboratory.

It may be two years before the Sports Authority is forced to make a choice, but the most plausible alternative at this point seems to be the plastic, nylon, or rubber liner. Football players have been playing on artificial turf for some years now, but the New Jersey stadium may be the first to feature an Astro-marsh.

It would work like this: A dike would be built and the marsh would be drained and stripped of vegetation. A 130-acre liner — costing about $120,000 for nylon, for example — would be spread over the marsh, and a freshwater marsh would be started on top of the liner, perhaps using runoff from the sports complex's 20,000-car parking lot. Drawbacks: No one is sure the scheme will work, or how long the liner would last.

Meanwhile, pollution experts from the state Department of Environmental Protection, the U.S. Environmental Protection Agency, and the meadowlands commission still are trying to figure out where all that mercury came from.

A fat clue presented itself last summer [illegible] a water, oil, and mercury spill was reported at the site of the old Wood-Ridge Chemical Co. on the West Riser Ditch, a tributary of Berry's Creek, about two miles upstream from the marsh. The plant, which had been sold to the Ventron Corp. of Beverly, Mass., and then to the George J. Wolf Realty Co. of Jersey City, was being demolished. In order to comply with occupational safety and health regulations, the demolition workers were watering down the property while they razed the building. The water running off the site carried oil and mercury into the ditch.

Who knows how long?

During the 40 years it had operated, the plant had used a substantial amount of mercury in its operations and eventually had installed a pollution control system to eliminate the discharge of poison into the Riser Ditch. For many years no one knew, or even asked, what the plant — or others like it — was pouring into the meadows. Now it was too late.

Today the old chemical plant is gone, replaced by an antiseptic-looking white concrete building marked by a large sign advertising the space inside for rent. Downstream, invisible, the mercury remains.

Sha

United Press Int

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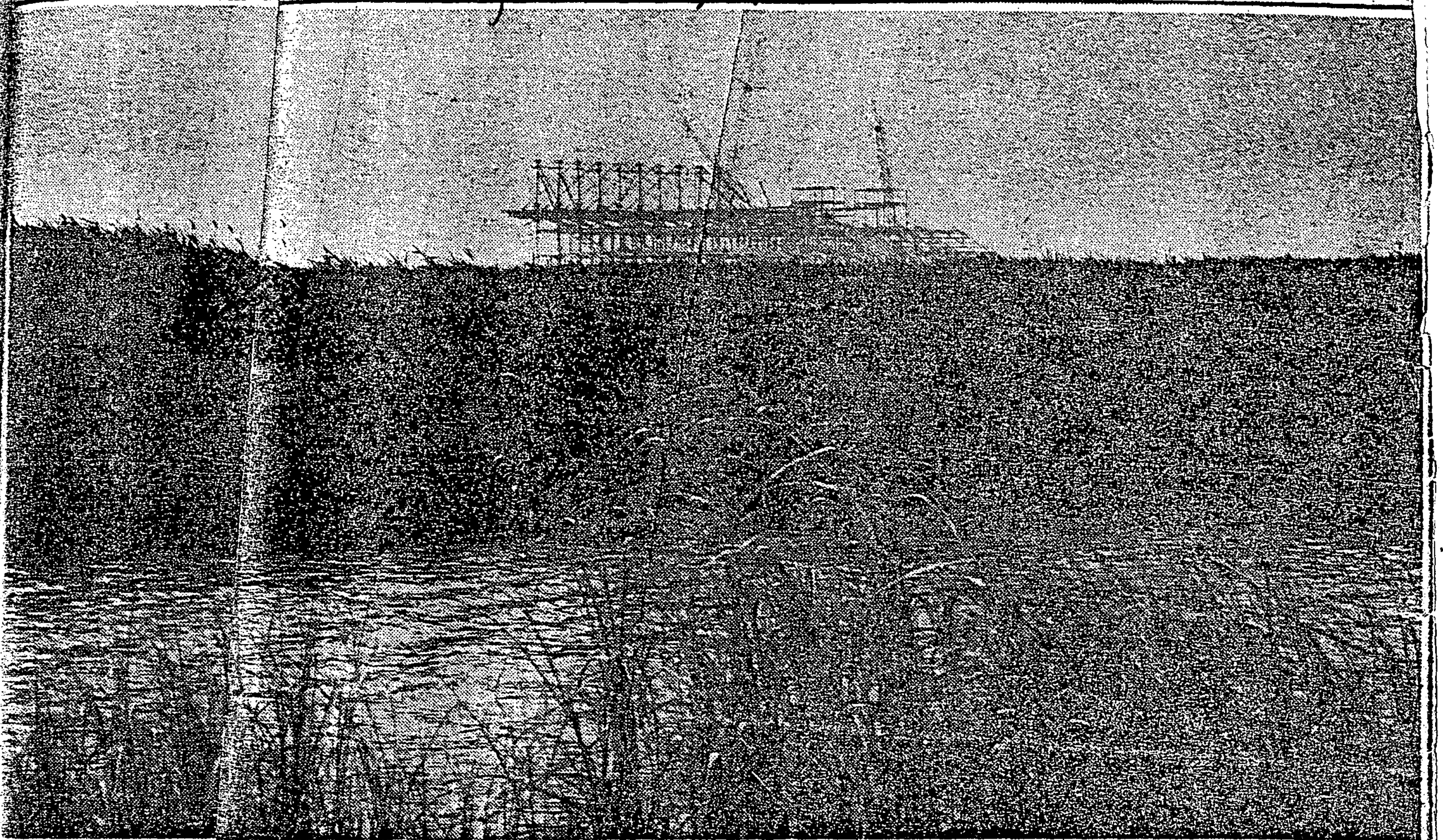
Friend of the People It [illegible]*es*

MONDAY, JULY 21, 1975 Serving New Jersey and New York From Hackensack, N. J. 07602 15 CENTS

Copies sent to Bill [illegible] and Henry [illegible] 7/23/75



Staff Photo by Peter Monsees

The marsh flanking Berry's Creek looks ordinary, but the area, near the rising sportsplex, is laced with mercury.

The Berry's Creek quagmire

By JOHN WALCOTT
Staff Writer

Along the eastern shore of Berry's Creek in East Rutherford, between Paterson Plank Road and Route 3, there is a tidal marsh. It covers about 160 acres and it looks like every other salt marsh in the Hackensack Meadows, a bright green sea of towering reeds crisscrossed by a haphazard network of murky creeks and ditches.

But the Berry's Creek marsh is not like all the others. For a number of years now — no one knows exactly how many — it has been soaking up poisonous mercury from the creek like a sponge. The marsh's brackish water now contains 30 times the normal amount of mercury, and the poison has settled three feet or more into the mud on the bottom. Ecologists believe it also has worked its way into the plants and animals that live in the marsh.

No one is sure where the poison came from and no one knows how to get rid of it, but the situation is so bad that the best solution seems to be covering the entire marsh with a nylon liner and starting all over again.

Accidental finding

Of course, pollution is anything but rare in the meadows, which have been little more than an open sewer for decades. Indeed, the plight of the Berry's Creek marsh probably would have gone unnoticed if the New Jersey Sports and Exposition Authority had not made plans to build a football stadium and racetrack next door.

The authority's plans, naturally, became a lightning rod for environmentalists, who wanted to protect the last big chunk of open space in the metropolitan area. The debate came to a head in February 1972, when the state Supreme Court ruled that the authority had not consulted adequately with the state Department of Environmental Protection or the Hackensack Meadowlands Development Commission. A marathon environmental hearing resulted, and when it ended after 25 days the DEP and the HMDC ordered the Sports Authority to restore 130 acres of the Berry's Creek marsh. The marsh, it was thought, would make an ideal environmental education center.

That much, at least, was true. The Sports Authority and its environmental consultants, Jack McCormick and Associates of Devon, Pa., received an immediate — and disturbing — environmental education.

The bad news

Conditions in the marsh, they discovered,

See MESS, Page A-4

July 8, 1975

60

Mr. William Jud
Atlantic Richfield Company
1500 Security Life Building
Denver, Colorado 80202

Dear Mr. Jud:

If it would be possible, would you supply me with the requirements of your company's proposal to the Rovic Construction Company for the reclamation of the mercury at their construction site. If your proposal was in a fee, commission, or resource recovery basis, I would be interested in knowing the details.

The intent of my inquiry is to establish various proposals made to the Rovic Company in order to discover what can be done and what will it cost.

Your cooperation in this matter will be appreciated.

Sincerely yours,

Michael V. Polito
Emergency Response & Inspection Branch

cc: W. Librizzi
H. Gluckstern
D. Longstreet

SA/ERB:MVPolito:nde:Bldg.209:x598:7/8/75

CONCURRENCES

SYMBOL	SA/ERB	SA/ERB						
SURNAME	POLITO	LIBRIZZI						
DATE								

EPA FORM 1320-1

OFFICIAL FILE COPY

RECORD OF COMMUNICATION

☐ PHONE CALL ☐ DISCUSSION ☒ FIELD TRIP ☐ CONFERENCE

☐ OTHER (SPECIFY)

(Record of item checked above)

TO: File

FROM: Michael V. Polito

DATE 7/8/75

TIME ca. 10:30

SUBJECT

Rovic Construction

59

SUMMARY OF COMMUNICATION

Received a call from Bob Wolff of Wolff Realty with reference to Rovic site.

1. Wolff first related that John Andrews had severe personal problems and left the company and his family.

2. He related that Atlantic Richfield had backed down from proposal for treatment.

3. Wanted additional firm names for retorting. He related that he has IRC Recycling willing to remove.

4. Wants to stock pile for shipment.

5. Wants to set mining level at 1.5%. I advised him to write us with his proposals and to contact Henry Gluckstern.

NOTE: I called Henry and told him Wolff had called.

Michael V. Polito

CONCLUSIONS, ACTION TAKEN OR REQUIRED

INFORMATION COPIES

TO: W. Librizzi

58

2-SA-ER

June 23, 1975

Letter from Atlantic Richfield

Henry Gluckstern
Water Enforcement Branch
Enforcement & Regional Counsel Division
EPA, Region II
26 Federal Plaza
New York, New York 10007

Attached is a copy of the letter I received from William Jud of Atlantic Richfield.

I would recommend that Mr. Jud be contacted and a determination of the conditions which he would accept work be obtained. (As a natural skeptic, I wonder if he has told me everything). If Mr. Jud's proposals seem reasonable, I suggest we initiate de novo negotiations with Rovic in hopes of bringing parties together.

Michael V. Polito
Emergency Response & Inspection Branch

Attachment

SA/ERB:MVPolito:nde:Bldg.209:x598:6/23/75

CONCURRENCES

SYMBOL	SA/ERB	SA/ERB						
SURNAME	POLITO	SPEAR						
DATE								

EPA FORM 1320-1

OFFICIAL FILE COPY

June 20, 1975

51

Mr. Joseph D'Amore
Rovic Construction Company
911 Bergen Avenue
Jersey City, New Jersey

Dear Mr. D'Amore:

Mr. Gluckstern has asked that I forward to you a copy of the letter received from Mr. Jud of the Atlantic Richfield Company.

Attached please find a copy of this letter. If you have any questions, please do not hesitate in contacting me.

Sincerely yours,

Michael V. Polito
Emergency Response & Inspection Branch

Attachment

SA/ERB:MVPolito:nde:Bldg.209:x598:6/20/75

CONCURRENCES

SYMBOL ▶	SA/ERB	SA/ERB						
SURNAME ▶	POLITO	SPEAR						
DATE ▶	MVP							

EPA FORM 1320-1

OFFICIAL FILE COPY

AtlanticRichfieldCompany

Synthetic Crude / Minerals Division
Resource Development Group - U.S.
1500 Security Life Building
Denver, Colorado 80202
Telephone 303 266 3741

H. S. McAlister
Exploration Manager
Uranium and Other Minerals

56

June 9, 1975

Mr. Michael V. Polito
Emergency Response and Inspection Branch
U. S. Environmental Protection Agency, Region 2
Edison, New Jersey 08817

Dear Mr. Polito:

I contacted Mr. Andrews of Rovic Construction about the mercury salvage project.

Rovic wants far too much money for the mercury in their soil. Mr. Andrews asked to be paid $150,000 for the value of the mercury removed. That, plus the rather small size of the operation, caused Atlantic Richfield to reject the project.

I appreciate the time and effort you spent with me on this project. Unfortunately, it didn't pan out.

Sincerely,

W. F. Jud

WFJ:cr

June 3, 1975

55

Mr. William Jud
Atlantic Richfield Company
1500 Security Life Building
Denver, Colorado 80202

Dear Mr. Jud:

I have again attempted to contact Mr. Andrews at Rovic Construction, but apparently he is out of town.

I would suggest direct contact as he can fill you in on all cost data relevant to the Ventron site.

Sincerely yours,

Michael V. Polito
Emergency Response & Inspection Branch

SA/ERB:MVPolito:nde:Bldg.209:x598:6/3/75

SA/ERB SA/ERB
POLITO SPEAR

54

February 28, 1975

Mr. John Andrews
Vice President
Rovic Construction Company
911 Bergen Avenue
Jersey City, New Jersey

Re: Agreement Between Rovic Construction Company, EPA, and NJDEP for conditions pertaining to construction on Wood-Ridge Development Lot 10, Block 229
Wood Ridge, New Jersey

Dear Mr. Andrews:

This is in response to your letter of January 30, 1975, in which you submitted to EPA, in accordance with our request at our January 10, 1975 meeting, five soil analyses performed by Jersey Testing Laboratories, Inc., along with a four-phase program to mitigate the transport from your property of mercury and other contaminents into the surrounding surface and sub-surface area waters.

The Environmental Protection Agency in reviewing options potentially available to you hereby submits the following proposal for your review. This proposal essentially implements the recommendations you proposed in your letter of January 30, 1975. After you have had time to consider and comment upon our proposal in writing to both the EPA and NJDEP, the final version will be written as a stipulation and final disposition for signature by the Regional Administrator, Region II, EPA, and the Commissioner, New Jersey Department of Environmental Protection, along with Rovic Construction and Wolf Enterprises.

(1) A continuous building perimeter footing shall be constructed as set forth in alternate 1 of your letter of January 30, 1975.

(2) A wall shall be constructed around the perimeter of the southern and eastern property lines, as set forth in alternate 3

of your letter of January 30, 1975, to a depth of one foot below the lower surface of the organic silt layer, or to a depth of five feet from the surface of the topsoil, whichever is greater.

(3) Complete impervious paving of the surface of the construction site shall be performed.

(4) All drainage from the property shall be carried by drainage ditches constructed of a water-impervious material.

(5) A monitoring program shall be conducted in a manner specified by the National Pollutant Discharge Elimination System permit which will be issued to the site.

(6) A semi-annual inspection schedule shall be maintained of all above-ground structures constructed to mitigate mercury pollution. A file shall be kept on the property, available for inspection by EPA and NJDEP during normal business hours. All cracks in paving and drainage shall be repaired within 14 (FOURTEEN) days of their detection.

(7) The conditions of any stipulation entered into by the above-mentioned parties shall appear in any deeds executed in transference of ownership or proprietorship of the property referred to above, and such stipulation shall become a covenant running with the land and shall be recorded in the records of the County Clerk's office.

If later survey or studies conducted by EPA or any other agency responsible for environmental quality determines that the above mitigating actions are not sufficient to meet the requirements of the final NPDES permit which will be issued to the site or the requirements of any laws or regulations relating to aquifers of the State of New Jersey, it is agreed that you will comply with any additional requirements which may be imposed.

We will arrange a meeting of EPA, NJDEP, Rovic and Wolf after you have had time to consider and comment upon the above proposal. The final language for the stipulation will be decided upon at that meeting.

If you have any questions, please do not hesitate to contact Mr. Henry Gluckstern.

Very truly yours,

MEYER SCOLNICK
Director
Enforcement and Regional
Counsel Division

cc: David Longstreet
N. J. Department of Environmental Protection
P. O. Box 2809
Trenton, New Jersey 08625

James J. McGuire, Jr., Esq.
N. J. Department of Environmental Protection
P. O. Box 2809
Trenton, New Jersey 08625

Robert Wolf, President
Wolf Enterprises
911 Bergen Avenue
Jersey City, New Jersey 07306

3/13 Discussed with Bill letter -

I do not agree with recommendations - some I feel are not necessary.

53

MEMO

DATE: Feb. 14, 1975

TO: File

FROM: D. J. Jacangelo

SUBJECT: Special Investigation in cooperation with N. J. Office of Special Services, Oil and Hazardous Materials Section

Drainage: Hackensack River
Stream: Berry's Creek
Suspected Pollutant: Mercury
Suspected Source: Ventron Corporation (Wood-Ridge Chemical Co.)
Location: Park Place East, Wood-Ridge Borough
Bergen County, New Jersey
Complainant: Dave Longstreet, N.J. DEP, Office of Special Services
Date of Pollution: Chronic
Date of Investigation: July 3, 1974
Principal Investigator: D. J. Jacangelo
Witnesses: ADGO Walter Robinson, N. J. Div. Fish, Game & Shellfish
Donald J. Smith, Hackensack Meadowlands Development Commission

The Ventron Corporation facilities were being demolished at the time of this investigation by Rovic Construction Company, Inc. (911 Bergen Avenue, Jersey City, N. J. 07306). The actual demolition was subcontracted to Ottellio Brothers. The property ownership of record, as of 28 January 1975, rested with Wolf Realty.

The location of field sample sites employed in the course of this inspection follow:

Lab No.	Sample Site Location	Time
5621	Ventron Corp. discharge site - water	11:45 A.M.
5622	Ventron Corp. discharge site - soil	11:45 A.M.
5623	Drainage Ditch (trib. to Berry's Creek) - approx. 150 ft. below Ventron discharge site - water	11:20 A.M.
5624	Drainage Ditch (trib. to Berry's Creek) - approx. 150 ft. below Ventron discharge site - soil	11:20 A.M.

Lab. No.	Sample Site Location	Time
5625	Berry's Creek (tide incoming) at West Riser Tidegate (Purcell Court/Wood-Ridge side of Creek) - water	11:00 A.M.
5626	Berry's Creek (tide incoming) at West Riser Tidegate (Purcell Court/Wood-Ridge side of Creek) - soil	11:00 A.M.

Results from laboratory chemical analysis of the above listed samples, follow:

* Sample #	Fe	Cu	Zn	Cr	Ni	Pb	Hg	Cd
5621	0.60	0	4.05	0	0	.012	.013	.005
5623	3.02	0	1.66	0	0	.010	.300	.001
5625	0.35	0	0.71	0	0	.002	0	0

* Reported as mg/l.

** Sample #	Fe	Pb	Hg	Cd	Cr
5622	7313.5	0.25	165	2.5	0
5624	6436.0	0.25	167	0.87	0
5626	6941.5	0.25	147	0.12	0

** Reported as mg/kg.

Sr. Fisheries Biol.
Pollution Unit

saw
cc A. B. Pyle, Chief
cc Michael V. Polito, Physical Scientest, EPA, Edison
cc David Longstreet, N.J. DEP , Oil & Hazardous Materials Section
cc Donald J. Smith, Hackensack Meadowlands Development Comm.

JERSEY TESTING LABORATORIES INC.
154-156 WRIGHT STREET AT McCARTER HIGHWAY, NEWARK, NEW JERSEY 07114
TELEPHONE NEWARK: (201) 248-6000 · TELEPHONE NEW YORK: (212) 344-7534

February 13, 1975

52

Mr. M. Polleto
Environmental Protection Agency
Edison, New Jersey 08817

Dear Mr. M. Polleto,

As per our telephone conversation today February 13, 1975, we are submitting herewith the sampling procedures.

Sampling Procedures

Sample "A"

Using a backhoe an area approximately 6'x6'x10' deep was dug out. At 7½' dug through face of excavation and extracted sample. Type of material dug through was sand, silt & clay, Gray to Reddish Brown. Temperature 17° time 11:15 A.M.
Location: 70' from building along north building line

Sample "B"

Dug out area approximately 6'x6'x7' deep. At a depth of 5' dug through face of excavation and extracted sample. Type of material excavated was sand, silt & clay Gray to Reddish Brown. Temperature approximately 17°-20° time 11:55 A.M.
Location: 180' from building along north building line

Sample "C"

Dug out area approximately 5'x5'x7' deep. At a depth of 6' dug through face of excavation and extraced sample. Type of material excavated was sand, silt & glay rangeing in color from black to gray to reddish brown. Temperature approximately 17°-20' time 12:20 P.M.
Location: 300' from building, 50' from north building line

Sample "D"

Dug out area approximately 5'x5'x8' deep. At a depth of 6' dug through face of excavation and extracted sample. Type of material excavated was sand, silt & clay black to gray to reddish brown. Temperature approximately 17°-22° time 1:10 P.M.
Location: Approximately 250' from building 200' from north building line

Sample "E"

Dug out area approximately 6'x5'x8' deep. At a depth of 6' dug through face of excavation and extracted sample. Type of material excavated was sand, silt & clay gray to reddish brown. Temperature approximately 17°-22° time 2:00 P.M.
Location: Approximately 70' from building 150' from north building line

Water Sample

A water sample also taken.

* Note: All samples taken below Meadow Mat.

Chemist: M.N. Elsaady
M.N. Elsaady
Tech.: Thomas Nesiti

Respectfully submitted,
JERSEY TESTING LABORATORIES INC.

BY:

JW/rj

51

MEMO

DATE: Feb. 14, 1975

TO: Michael V. Polito, Physical Scientist
Environmental Protection Agency, Region II
Edison, New Jersey 08817

FROM: D. J. Jacangelo, Sr. Fisheries Biologist
N. J. Bureau of Fisheries Laboratory
Pollution Unit
Lebanon, New Jersey 08833

SUBJECT: Proposed Cooperative Heavy Metals Monitoring Project - Ventron Corp., Tentative Sampling Schedule

Drainage: Hackensack River
Stream: Berry's Creek
Location: Wood-Ridge Borough, Bergen County, New Jersey

It is anticipated that field samples will be collected annually (i.e. July) by Bureau of Fisheries personnel. These samples will thereafter by delivered to the EPA, Edison Laboratory for mercury and other heavy metals analysis. Records on this project will be maintained by the Bureau of Fisheries and annual reports reflecting monitoring project analyses will be typed and distributed from the Lebanon office. A three-year monitoring effort is planned involving about twelve (12) samples per sampling date.

The following sample types are anticipated:

4 - Surface water samples from Berry's Creek - tide outgoing
4 - Bottom samples from Berry's Creek
1 - Fish specimen (probably killifish)
1 - Other fauna specimen (possibly crab)
2 - Flora specimens (rooted aquatic or semi-aquatic plants)

It is anticipated that a preliminary inspection of the study area effort to determine sample site locations ction technique.

mment or suggestions you might care to ect proposal and its feasibility. Also,

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF FISH, GAME, AND SHELL FISHERIES
P. O. BOX 1809
TRENTON, N. J. 08625

some insight into sample volumes necessary to accommodate the suggested analyses is desired.

R. J. Jacangelo
Sr. Fisheries Biol. (saw)

saw
cc Pyle, Chief of Fisheries
cc (Francis T. Brezenski, EPA Lab Director) via Polito
cc Donald J. Smith, Hackensack Meadowlands Development Commission
cc David Longstreet, N. J. Office of Special Services
Oil and Hazardous Materials Section

U. S. ENVIRONMENTAL PROTECTION AGENCY
Region II
26 Federal Plaza
New York, New York 10007

50

February 6, 1975

El Paso Natural Gas Co.
Mining Division
Box 1492
El Paso, Texas 79999

Re: Recovery of mercury from contaminated soil at Rovic Construction site, Woodridge, New Jersey

Gentlemen:

I am writing you to inquire whether your company has facilities for the processing of soil contaminated with mercury in both the liquid elemental state and the organic state. The above construction site was formerly the site of the Ventron Company's mercury processing plant. For most of this century, the property has been occupied by mercury processing facilities and because of continued poor housekeeping, the soil surrounding the site is heavily contaminated with mercury and other metals. While the concentration has proven as high as 14%, we estimate that the average concentration is 1% over 10,000 cubic yards. These figures are based upon extensive coring samples analyzed by national testing laboratories.

While the present plans of the site owners, who now wish to construct warehousing facilities on the property, is to "entomb" the problem area in concrete with blacktopping around the perimeter, the Environmental Protection Agency feels that the ultimate solution would be the actual recovery of the mercury. We also feel that the average concentration of 1% is significanty above the concentration of 0.1% ores which are presently being refined, to warrant consideration of transportation of the soil to a mining company with facilities to recover the mercury on a profitable basis, taking into account the transportation by rail and the initial excavation of the soil.

Therefore, if you company is equipped to handle such a recovery operation, I would appreciate it if you would contact me at your earliest possible convenience at the above address, or by phone at (212) 264-4430.

2ERC-WE; HGLUCKSTERN x 4430; mf; 2/6/75

2ERC-WE

I look forward to hearing from you.

Very truly yours,

Henry Gluckstern
Attorney
Oil and Hazardous Materials
Enforcement and Regional
Counsel Division

cc: Mike Polito
EPA, Edison, New Jersey

February 6, 1975

New Idria Mining and Chemical Co.
3457 South Cedar
Fresno, California 93745

Re: Recovery of mercury from contaminated soil at Rovic Construction site, Woodridge, New Jersey

Gentlemen:

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2ERC-WE; GLUCKSTERN; 4430; hg; 2/6/75

2ERC-WE

I look forward to hearing from you.

Very truly yours,

Henry Gluckstern
Attorney
Oil and Hazardous Materials
Enforcement and Regional
Counsel Division

cc: Mike Polito
EPA, Edison, New Jersey

February 6, 1975

Consolidated Brewis Minerals, Ltd.
Room 416
25 Adelaide St., W.
Toronto, Ontarion Canada

Re: Recovery of mercury from contaminated soil at Rovic Construction site, Woodridge, New Jersey

Gentlemen:

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2ERC-WE; GLUCKSTERN; 4430; hg; 2/6/75

2ERC-WE

I look forward to hearing from you.

Very truly yours,

Henry Gluckstern
Attorney
Oil and Hazardous Materials
Enforcement and Regional
Counsel Division

cc: Mike Polito
EPA, Edison, New Jersey

U. S. ENVIRONMENTAL PROTECTION AGENCY
Region II
26 Federal Plaza
New York, New York 10007

February 6, 1975

Bonanza Oil & Mining Corp.
Sutherlin, Oregon

Re: Recovery of mercury from contaminated soil at Rovic Construction site, Woodridge, New Jersey

Gentlemen:

I am writing you to inquire whether your company has facilities for the processing of soil contaminated with mercury in both the liquid elemental state and the organic state. The above construction site was formerly the site of the Ventron Company's mercury processing plant. For most of this century, the property has been occupied by mercury processing facilities and because of continued poor housekeeping, the soil surrounding the site is heavily contaminated with mercury and other metals. While the concentration has proven as high as 14%, we estimate that the average concentration is 1% over 10,000 cubic yards. These figures are based upon extensive coring samples analyzed by national testing laboratories.

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2ERC-WE; HGLUCKSTERN x 4430; mf; 2/6/75

2ERC-WE

I look forward to hearing from you.

Very truly yours,

Henry Gluckstern
Attorney
Oil and Hazardous Materials
Enforcement and Regional
Counsel Division

cc: Mike Polito
EPA, Edison, New Jersey

AFFILIATED WITH

ROVIC CONSTRUCTION CO., INC.

911 BERGEN AVENUE • JERSEY CITY, NEW JERSEY 07306 • (201) 653-6300 • N.Y. (212) 962-6840

49

January 30, 1975

Mr. William Librizzi
United States Environmental Protection Agency
Emergency Response Branch
Region II
Building 209
Edison, New Jersey 08817

Re: Wood-Ridge Development
Lot 10, Block 229
Park Place East
Wood-Ridge, New Jersey

Gentlemen:

In accordance with your request at the meeting held at your office on January 10, 1975, enclosed please find a copy of the following reports as prepared by Jersey Testing Laboratories, Inc.:

1. Mercury analysis of the soil, 5 different locations below the meadow mat at areas indicated on site plan.
2. Analysis of the water at the drainage manhole.

We are also enclosing a copy of a report as prepared by Jos. S. Ward, Inc., Consulting Geotechnical Engineers, dated January 29, 1975, outlining the 4 alternate programs or stages to alleviate the mercury problem at the above referenced site in accordance with our verbal presentation to you at the aforesaid meeting.

I trust the above information meets with your satisfaction, and should you require any additional information, please do not hesitate to contact me.

In order that we may proceed as rapidly as possible with this project, we would greatly appreciate hearing from you at your earliest convenience.

Very truly yours,

John Andrews

John Andrews
Vice President

JA:ic
encls.
cc: Mr. David Longstreet
Supervisor, Spill Prevention Program

Mr. Michael V. Polito
Chemist

Henry Gluckstern, Esq.

Mr. John F. Falkenberry

Thomas Schiel, P.E.
Jos. S. Ward, Inc.

Mr. Robert M. Wolf
President

48

JOSEPH S. WARD, INC.

CONSULTING GEOTECHNICAL ENGINEERS

P. O. BOX 91 • 91 ROSELAND AVENUE • CALDWELL, NEW JERSEY 07006

THOMAS J. SCHEIL, P.E.
PROJECT MANAGER

Mr. John Andrews, Vice President
ROVIC CONSTRUCTION COMPANY, INC.
911 Bergen Avenue
Jersey City, New Jersey 07306

29 January 1975

RE: Woodridge Development
Woodridge, New Jersey
(C7403-3)

Dear John:

In accordance with your request as a result of the meeting with the Environmental Protection Agency at their office on 10 January 1975, we hereby present our complete recommended program to deal with the mercury pollution problem at the referenced site. This correspondence is a supplement to our original letter dated 2 January 1975 to your office.

To recapitulate, the subsoil conditions at the site consist of a mercury-contaminated fill material about 3 feet thick, underlain by a natural ½- to 1-foot thick layer of stiff organic silt and peat which is essentially impervious. Beneath the organic soils is a porous 10- to 20-foot layer of gray and brown silty sand. Below the sand is an impervious varved clay that extends to over 100 feet beneath the surface.

Up to 14% of mercury, by weight, was found in the uppermost fill soils based on a report by Jersey Testing Laboratories, Inc. dated 10-1-74. As requested by members of EPA, at the 10 January 1975 meeting, samples of the natural gray silty sand below the thin organic layer were secured and tested by Jersey Testing Laboratories, Inc., and we understand that the results indicated a maximum mercury concentration of 1.3 parts per billion. Based on these test results, our evaluation that the organic layer acts as an impervious barrier is confirmed.

is this
Correct
13 ppm

As a result, we hereby recommend four alternate programs or stages to alleviate the mercury pollution problem at the site:

Alternate 1 - Continuous Building Perimeter Footing plus Complete Impervious Paving of the Remaining Area.

to meadow mat.

Alternate 2 - Alternate 1 above, plus shallow cutoff walls around portions of the southern, eastern and western property lines.

Alternate 3 - Alternates 1 and 2 above, plus completion of the shallow cutoff wall along the entire eastern and southern property lines.

Alternate 4 - Alternate 1 above, plus a deep cutoff wall along the entire eastern and southern property lines.

In order to evaluate the effectiveness of the Alternate 1 procedure, the stream along the southern property line should be monitored after construction. If more than 15 parts per billion of mercury contamination is recorded, Alternate 2 should be implemented. If monitoring after this construction indicates that the allowable pollution levels are being exceeded, Alternate 3 should be implemented. Similarly, Alternate 4 is recommended if all other alternates fail.

Specifically, the alternate schemes would entail the following construction procedures:

Alternate 1 - Continuous Building Perimeter Footing and Paving

a) The exterior footings should be a continuous footing founded in the gray sand directly below the organic layer.

b) The footing should be poured neat, i.e. without forms, in contact with the organic soil. The concrete wall on the footing may be formed (see sketch enclosed).

c) Keyed joints with waterstops should be used between pours and between the footing and the foundation wall.

d) The entire area around the structure should be sealed with an asphaltic pavement.

Alternate 2 - Alternate 1 Plus Selected Shallow Cutoff Walls

e) Install a cutoff wall from the surface to the top of the organic layer (about 3 feet deep) along the eastern property line, north from the southeast corner at least 230 feet, and along the southern propery line southwest at least 80 feet and thence north to intersect the foundations of the structure. In addition, the contaminated area at the southern property line at point H2 (see attached Cutoff Wall Alternate plan) should also be isolated by a shallow cutoff wall. Similarly, the area at F1 should be isolated.

Alternate 3 - Alternates 1 and 2 Plus a Complete East and South Shallow Cutoff Wall

f) Complete the shallow cutoff wall along the eastern property line and extend the partial shallow cutoff wall to encompass the entire southern property line. The southerly wall should extend at least 50 feet west of the western building line.

Alternate 4 - Alternate 1 Plus a Deep Cutoff Wall

g) Install a cutoff wall from the surface to, and at least 3 feet into, the impervious varved clay soil 10 to 20 feet below the surface. The wall should extend along the entire eastern and southern property lines. The southerly cutoff wall should extend at least 50 feet west of the westerly building wall.

Both the shallow and deep cutoff walls may consist of concrete or a bentonite-sand mixture (slurry wall) with or without a cement additive.

If you have any questions, please call.

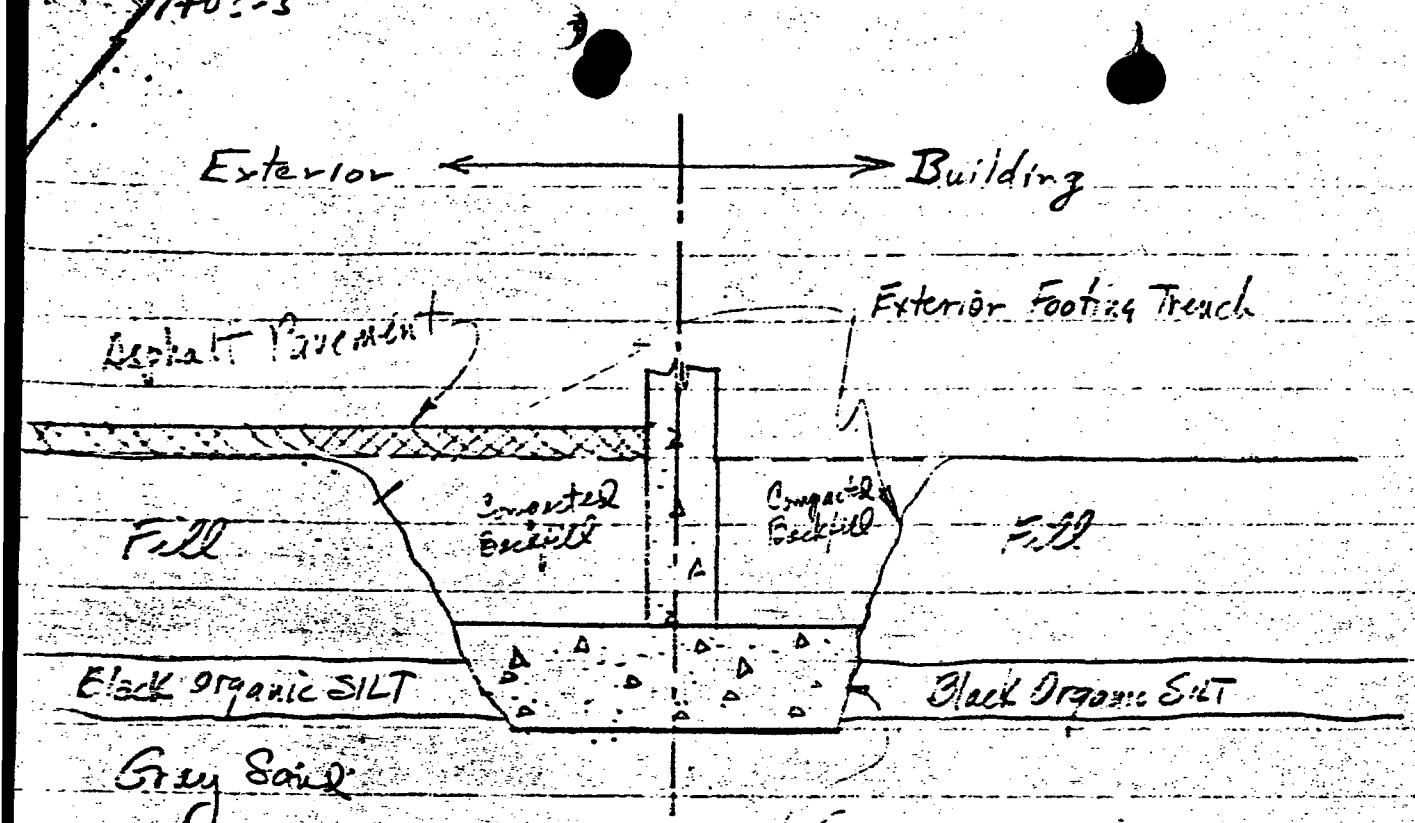
Yours very truly,

JOSEPH S. WARD, INC.

Thomas J. Scheil, P.E.

TJS/jrs

Encl.: Footing Configuration
Cutoff Wall Alternates



Footing Shall be poured neat (without forms) to maintain an impervious seal between the fill and the gray Sand.

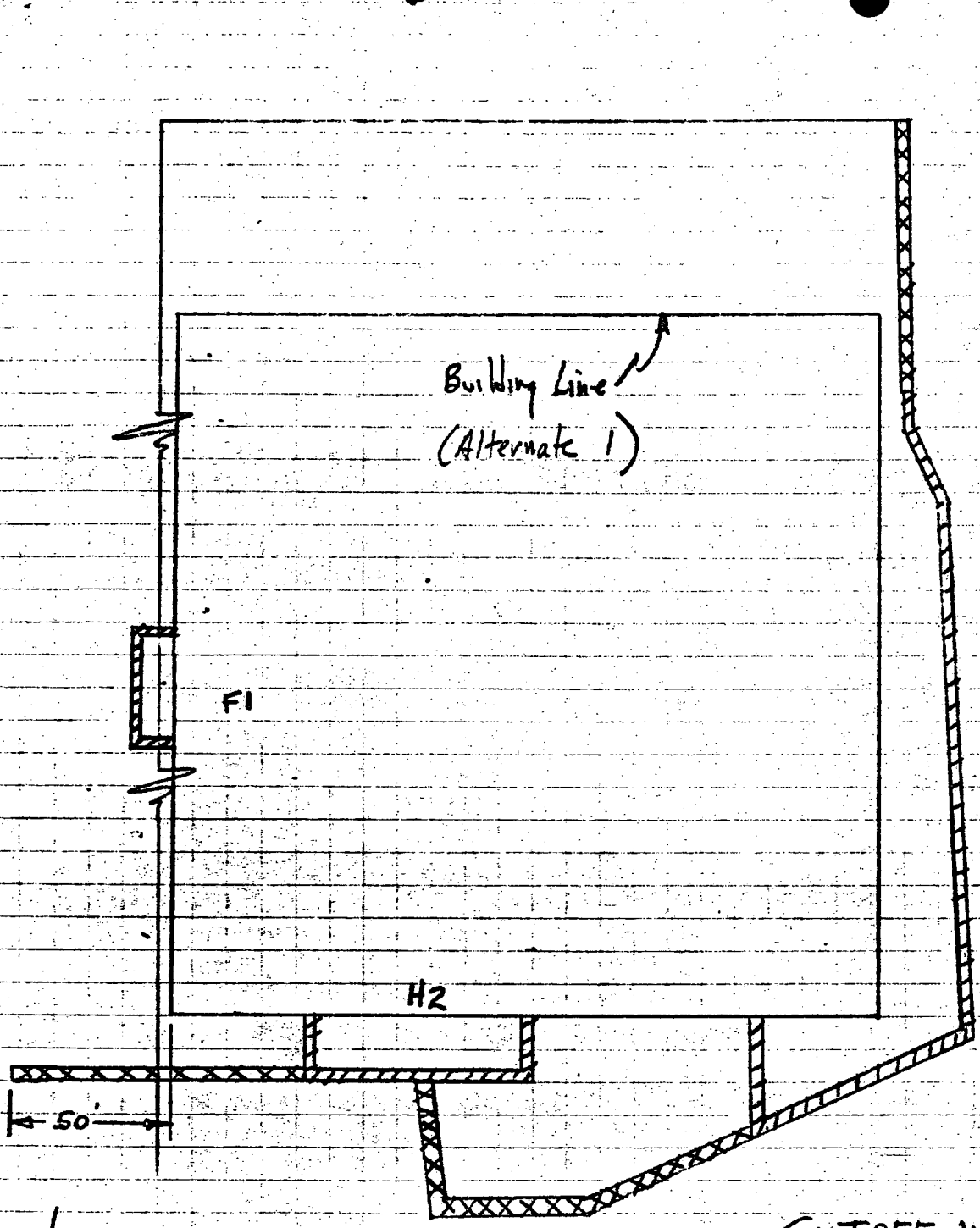
SCHEMATIC SECTION
FOOTING CONFIGURATION
WOODRIDGE DEVELOPMENT

T. S. WARD, INC.

CALDWELL, N.J.

(C7403-3)

JAN. 1975



Scale: 1"=60'

Legend

Alternate 2

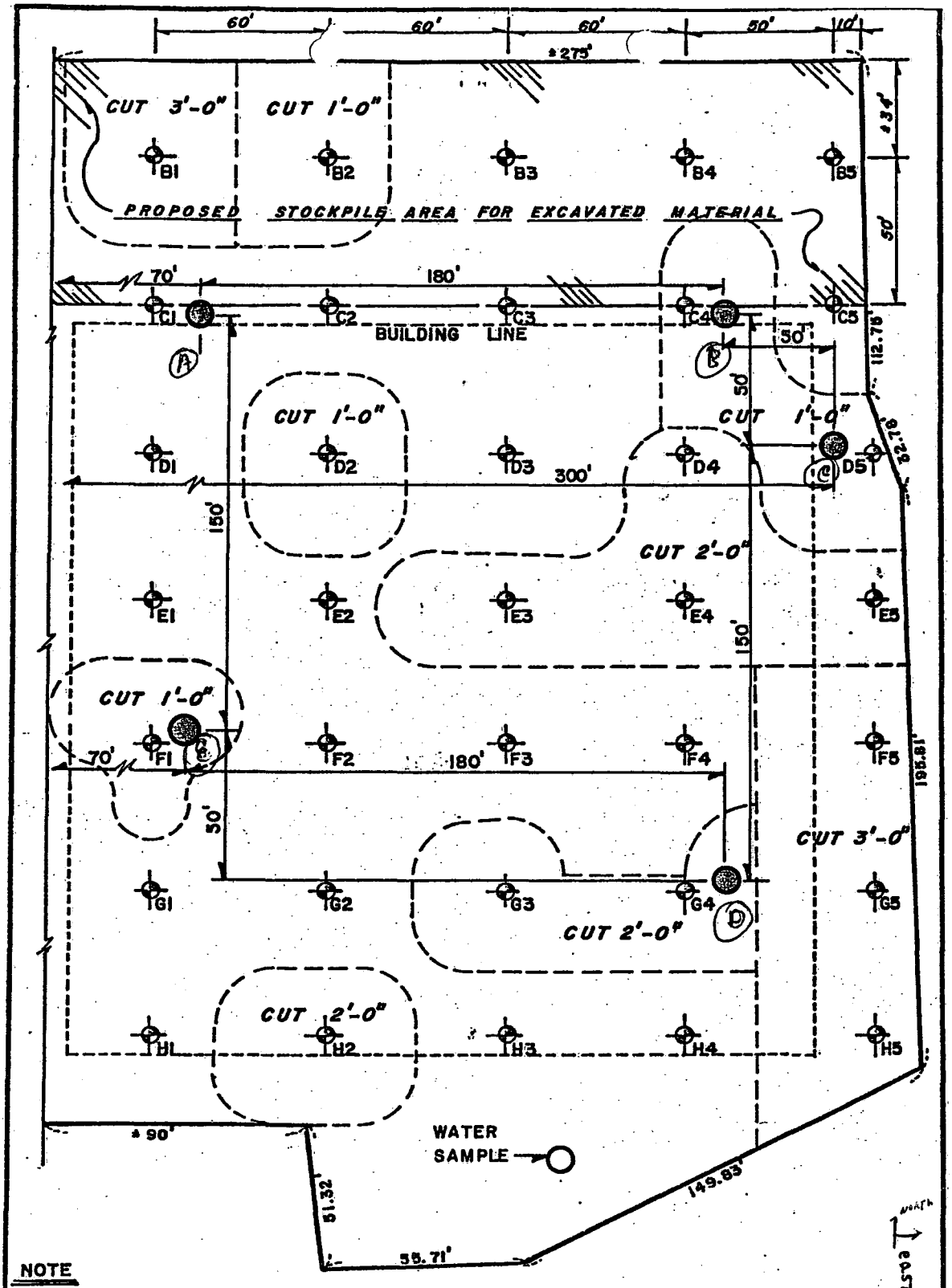
Alternate 3

CUTOFF WALL ALTERNATES

Woodridge, N.J.

Joseph S. Ward Inc
Consulting Engineers
Caldwell N.J.
C7403-3

Jan. 1975



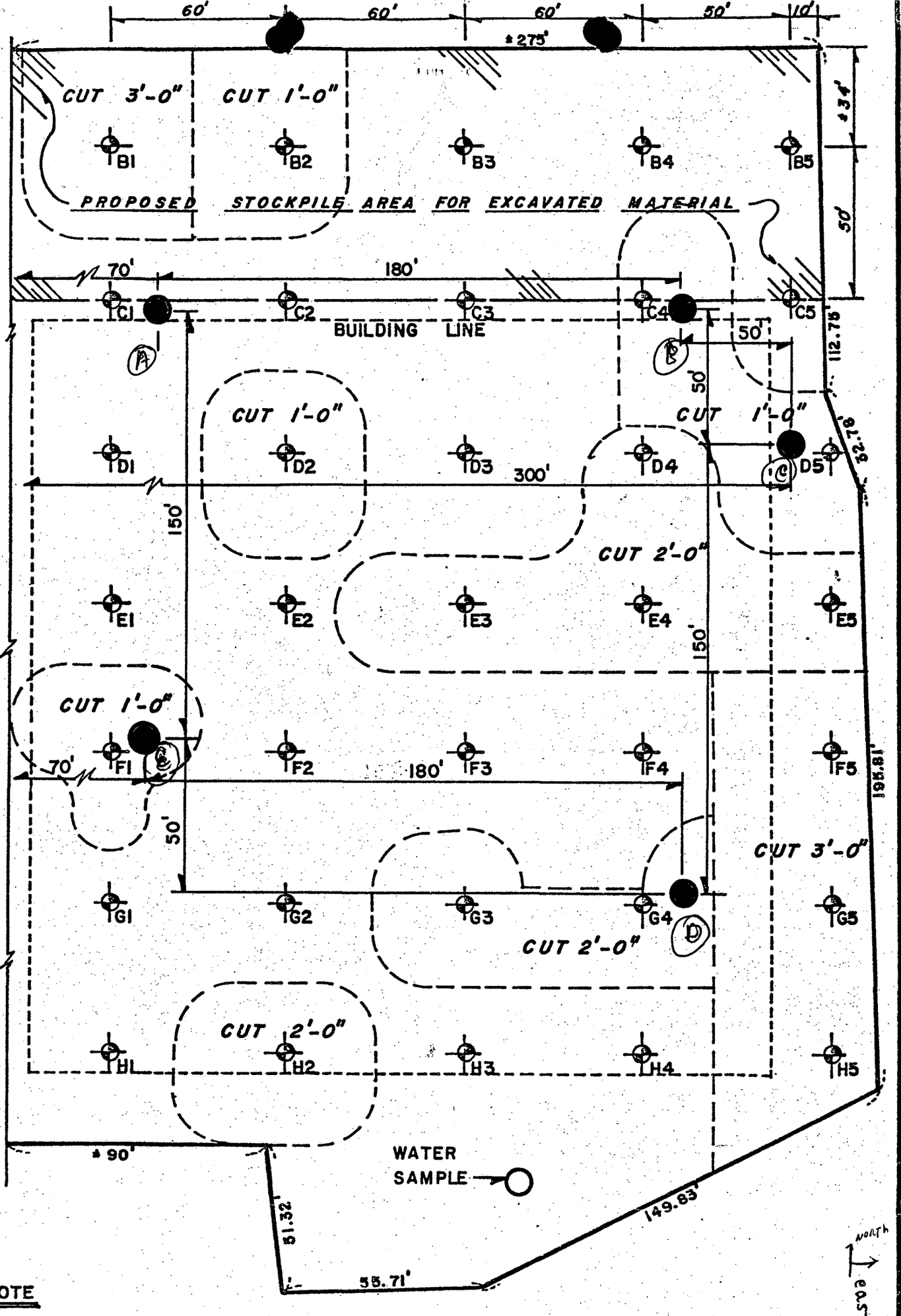
NOTE

PROPOSED AREAS AND DEPTH OF EXCAVATION ARE BASED UPON MERCURY CONTENT OF SOIL BEARING GREATER THAN 1% BASED UPON RESULTS OF MERCURY TESTS CONDUCTED BY JERSEY TESTING LABS., INC.

AFFILIATED WITH GEO. J. WOLF

ROVIC CONSTRUCTION CO., INC.
911 BERGEN AVENUE
JERSEY CITY, N.J. 07306
General Contractors & Engineers

TEST BORINGS	
WOODRIDGE	
SCALE	1" = 40'
DATE	12/8/74
SHEET	M-1



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AFFILIATED WITH:
GEO. J. WOLF
ROVIC CONSTRUCTION CO., INC.
911 BERGEN AVENUE
JERSEY CITY, N.J. 07306
General Contractors & Engineers

TEST BORINGS	
WOODRIDGE	
SCALE	1" = 40'
DATE	12/6/74
SHEET	M-1

Meeting 1/10/75 -
Chaired by Harry Gluckstern

NAME	ORGANIZATION	PHONE
Bill Librizzi	U.S. EPA Region II	201-548-3347
Mike Polito	U.S. EPA Region II	201-548-3347
David C. Longstreet	NJDEP	609-292-5560
Jeffrey D. Light	NJDEP	609-292-8986
James J. Maguire	NJDEP, Attorney	
Robert M. Wolf	Wolf Organization	201-653-6300
Ernest F. Johnson	Consulting Engineer (Prof. Chem. Eng., Princeton U.)	609-452-4574
John J. Budd	Attorney, Newark (Budd, Lanner, Kent, Gros, Picello & Rosenbaum)	201-622-7800
John F. Andrews	V.P. Rovic Const. Co.	201-653-6300
David F. Ollis	Consulting Engineer (Prof Ch. Eng., Princeton U.)	609-452-4583
John F. Falkenbury	U.S. EPA Region II	212-264-2911
Richard A. Flye	U.S. EPA Region II	212-264-9885
Henry Gluckstern	U.S. EPA Region II	212-264-4430
Charles Hoffmann	U.S. EPA Region II	212-264-9897

FORM 16

JERSEY TESTING LABORATORIES INC.

47

ENGINEERS, LABORATORY AND INSPECTION SERVICE

154-156 WRIGHT STREET At McCarter Highway NEWARK, N. J.

S-8065

1-28-75

1st Report of Test

Order No. NL-2580

Contract No.

CLIENT: Rovic Construction Company, Incorporated
ADDRESS: 911 Bergen Avenue, Jersey City, New Jersey
SAMPLE OF: Soils and Water
FOR: Content of Mercury
REPORTED TO: Mr. John Andrew

We submit herewith the results of tests conducted on the sample selected, identified, taken by client, witnessed and picked up by Jersey Testing Laboratories Incorporated representative.

Laboratory No.	Identification (Soil Samples)	Location	Depth	Results of Mercury Tests % (1 % = 1000)
C-50324	A	70' From Bldg. Along North Bldg. Line	7½'	0.0013
C-50325	B	180' From Bldg. Along North Bldg. Line	5'	0.0002
C-50326	C	300' From Bldg., 50' From North Bldg. Line	6'	0.00055
C-50327	D	Approximately 250' From Bldg. 200' From North Bldg. Line	6'	0.00025
C-50328	E	Approximately 70' From Bldg. 150' From North Bldg. Line		0.00015

Water Sample	Identification	Mercury Mg/L.
C-50343	-	0.003

1 = 1,000,000
.1 = 100,000
.01 = 10,000
.001 = 1000
.0001 = 100
.00001 = 10 Mg/L

Enclosure: One map showing the test hole locations.

Remarks: All samples taken below Meadow Mat.
Results discussed with client via telephone.

Note: Sample will be discarded if not picked up by client's representative within thirty (30) days.

Respectfully submitted,
JERSEY TESTING LABORATORIES INC.

Chemist: M.N. Elsaady
M.N. Elsaady

Tech.: E.A., T.M.

BY: F.W. Wright

Copies issued to:
5-Rovic Construction Company, Inc.
911 Bergen Avenue
Jersey City, New Jersey
Attn: Mr. John Andrew

JW/rj

Venteon Meeting 1/10/75.

46

1. Tom Scheil

1974 Survey –

3' Fill

6-12' Organic Peat

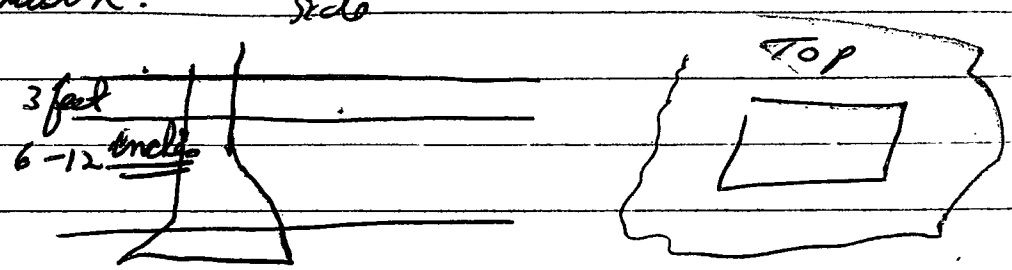
Sand.

Tom Scheil

Water found from surface and down.

The organic layer seems to be an impervious water layer.

Construction will be by essentially excavating foundation through the entire "impervious layer as shown.



The remaining part of the area would be covered by asphalt.

The stream would be monitored.

If the mercury were found, a concrete impervious fence would be erected around the perimeter of the property.

Because of the absence of a water head Tom Scheil feels that no water movement would occur through the head.

Scheme Sequence

1) Plant construction
2) Paving
3) 4' fence.
4) fence to clay.

45

David Longstreet

Marla Tiffany

January 8,1975

Mercury Data from Reports on Hackensack-Meadowlands Sports Complex

I. Month of October 1974

a. Stations on access road
b. Data from water samples
c. EPA standard 1.0 mg. Hg/ h Hg.

	Stations & Mercury Con. (ug/e)			Sample	Time
Day	Tide	C.C.P.4	WHN	C.C.P.4	WHN
2	high	1.4	2.7	0955	1000
9	low	1.6	4.2	0930	0935
16	low	1.0	2.2	1510	1515
23	high	1.0	2.4	1440	1445
30	low	0.7	0.3	1345	1355

II. Month of October 1974

a. Data from water samples
b. Guideline 10 ug/e

		Stations & Mercury Con. (ug/e)					Sampling Times				
Day	Tide	Sp,	RP,	DP,	LBC,	UBC,	SP,	RP,	DP,	LBC,	UBC,
15	high	10.2	1.6	3.7	1.3	4.0	0905	0840	0855	0945	0920
16	low	6.4	2.5	2.0	4.3	0.6	1440	1430	1435	1525	1415

III. Month of September 1974

a. Data from water samples
b. Guideline 10 ug/e

		Stations & Mercury Con. (ug/e)						Sampling times				
Day	Tide	SP,	RP,	DP,	LBC,	UBC,	SP,	RP,	DP,	LBC,	UBC,
19	low	0.22	1.7	1.0	2.4	15.0	0435	0415	0420	0510	0450
19	high	1.6	0.75	1.4	11.0	47.5	1235	1210	1220	1140	1120

IV. Month of September 1974

a. Data from water samples
b. Stations on access road
c. EPA standard 1.0 ug/e

	Stations & Mercury Con. (ug/e)			Sampling Times	
Day	Tide	CCP4	WHN	CCP4	WHN
4	high	1650	2.9	1115	1120
6	high	--	--	1100	1125
9	high	--	--	1425	1430
11	low	0.90	2.2	1005	1015
13	low	--	--	1250	1255
16	low	--	--	1515	1520
18	high	2.0	0.4	1110	1115
25	low	4.0	9.3	1115	1125

V. Month of April 1974
a. Data from water sample
b. EPA standard 0.001 mg/e

Day	Station Whn	Sampling Time Whn
15	10.0005	Sampling didn't begin till 16 th.
17	0.00085	1135

VI. Mercury Concentration in Berry's Creek Marsh

a. June 5, 1972 - Concentration unusually high. Soil sample.
b. June 15-16,1972 - Concentration 2.3 to 26.0 mg/km in upper 0-2 inches of sediment. 7.0 to 208.0 mg/km at 4-6 inches sediment. Samples from bottom of a drainage channal 74. 0 mg/km. from 1-2 inches. 38.0 mg/km from 3-4 inches and 0.3 mg/kg from 4-6 inches.
c. February 1974 - Concentration 5.5 to 75.0 mg/km dry weight of soil. Unpolluted segments 0.05 mg/km.
d. Mean of 30 analyses is 34.13 mg/kg.

Sample Number	(1972) Depth & Mercury Con.(mg/kg) 0-2	2-4	4-6	(1974) Depth & Mercury Con.(mg/kg) Nat.	0-6	30-36
1	19.0	-	7.4			
2	74.0	38.0	0.3			
3	26.0	-	44.0			
4				29.2	61.7	8.3
5	3.0	-	208.0			
6				28.4	60.1	7.1
7				37.8	40.6	9.1
8	2.3	-	8.2			
9				27,9	36.7	14.6
10	6.0	-	7.0			
11	6.7	-	96.2	33.7	75.0	5.5
12						

VII. February 21, 1974

a. Location Berry's Creek Marsh
b. Data from soil sample

Station	Depth & Mercury Con. mg/kg 1-6 inches	3 feet	Composite
1	40.6	9.1	37.7
2	75.0	5.5	33.9
3	60.1	7.1	28.9
4	61.7	8.3	29.2
5	36.6	14.6	29.9

VIII. April 11, 1973

a. Receiving point I - Le 01 by spectrographic scan

IX. Month of May 1974

a. Data from water sample
b. EPA standard 1.0 mg/e

Day	Tide	Station & Mercury Con. (mg/e) RP.	Time
13	ebb	1.5	0930
17	3/4 ebb	136	1030

Day	Tide	Station & Mercury Con. (mg/e) RP.	COP4	WHN
1	3/4 ebb	-	-	1.4
6	flood	-	5.8	LO.5
8	3/4 flood	-	1.5	2.0
13	ebb	1.5	1.5	LO.5
15	3/4 ebb	-	LO.5	LO.5
17	3/4 ebb	136	-	-
20	3/4 ebb	2.3	1.6	6.8
22	3/4 ebb	-	1.2	1.0
29	3/4 ebb	-	4.6	1.0

Sampling Time RP.	COP4	WHN
between 0130 to 1130		
1040	1210	1135
1005	1145	1100
0930	0850	0840
0930	0840	0830
1030	btwn. 1130 & 1230	
1140	1230	1220
between 1430 & 1600		
1610	1505	1510

X. June 15-16,1972

a. Data from water sample

Sample Description	Hg.(mg/g)
A upper	3.0
A lower	208.0
B upper	2.3
B lower	8.2
C upper	6.0
C lower	7.0
D upper	6.7
D lower	96.2
E upper	5.0
E lower	1.4
F upper	3.7
F lower	2.5
G upper	4.5
G lower	0.6
H upper	5.6
H lower	1.9
I upper	8.4
I lower	3.3
J upper	1.7
J lower	1.3
K upper	0.7
K lower	1.3

JOSEPH S. WARD, INC.

CONSULTING GEOTECHNICAL ENGINEERS

P. O. BOX 91 • 91 ROSELAND AVENUE • CALDWELL, NEW JERSEY 07006

THOMAS J. SCHEIL, P.E.
PROJECT MANAGER

ROVIC CONSTRUCTION CO., INC.
RECEIVED
JAN 3 1975

Mr. John Andrews, Vice President
ROVIC CONSTRUCTION CO., INC.
911 Bergen Avenue
Jersey City, New Jersey 07306

2 January 1975

RE: Woodridge Development
Woodridge, New Jersey
(C7403-3)

Dear John:

As requested at the meeting at your office on 31 December 1974, we have reviewed the report by Jersey Testing Laboratories, Inc. dated 10-1-74, relating to the presence of mercury within the fill overlying the eastern portion of the site. The report indicates that up to 14% of mercury, by weight, was found.

We understand that normal rainfall results in mercury pollution of the existing drainage ditch to the south and ultimately to Berry's Creek to the east. Therefore, you requested that we present various schemes or alternatives to prevent this contamination of the existing waterways.

You informed us that complete removal of the contaminated fill, which would have to be carried out of the state, would be economically prohibitive; and that removal of the fill and stockpiling on the site for treatment has been rejected by the Department of Environmental Protection.

The fill material at the site is about 3 feet thick. Underlying this fill is a natural ½- to 1-foot thick layer of stiff organic silt and peat which is essentially impervious.

Since removal is not feasible, we propose to contain the contaminated fill material so that no flow of water occurs into or out of it. Since the fill is underlain by an impervious organic soil layer, containment will only be required around the perimeter of the area. In light of the

fact that the proposed structure is about 250 feet square and encompasses most of the problem fill, we recommend that the exterior concrete footings be designed as a cutoff wall as follows:

1. The exterior footings should be a continuous footing founded in the sand directly below the organic layer.

2. In order to preserve the impervious nature of the organic layer, the footing should be poured neat, i.e. without forms, in contact with the organic soil. The concrete wall on the footing may be formed.

3. Since the exterior footing will not be able to be poured monolithically, keyed joints with waterstops should be used between pours.

A sketch of the typical exterior wall footing is attached.

In order to prevent surface or rain water from flowing into the fill around the structure, the entire area should be sealed with asphaltic pavement.

Even with the above procedures, it is possible that some contaminated water will reach the drainage channel south of the property. We therefore recommend that after the structure and pavements are completed, the stream be monitored for any mercury contamination. If significant contamination is recorded, it will be necessary to surround the entire site with a cutoff wall at the property line. This wall, as previously discussed, could consist of concrete. Alternate cutoff walls could consist of a bentonite-sand slurry wall (with or without a cement additive) or a trench backfilled with impervious clay. The latter procedure is considered likely to be unsatisfactory in light of the difficulties of obtaining, placing, and compacting the soil to create a truly effective impervious barrier, and hence is not recommended.

If the recommended procedures are followed, it is our opinion that an effective seal can be created, thereby preventing contamination of the waterways.

If you have any questions or if we can be of further assistance, please call.

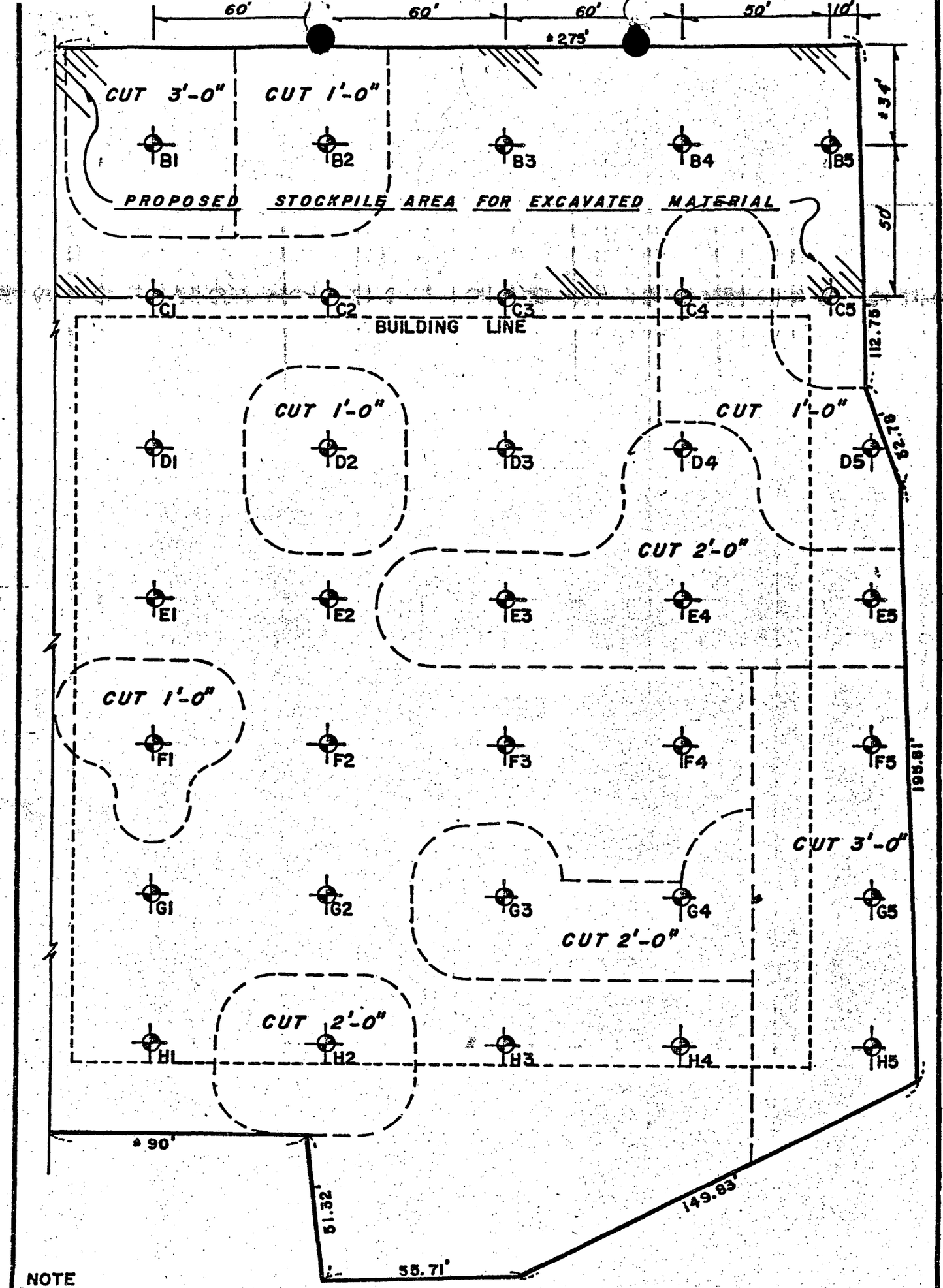
Yours very truly,

JOSEPH S. WARD, INC.

Robert S. Woolworth

for Thomas J. Scheil, P.E.

TJS/jrs
Encl.: Sketch



NOTE

PROPOSED AREAS AND DEPTH OF EXCAVATION ARE BASED UPON MERCURY CONTENT OF SOIL BEARING GREATER THAN 1% BASED UPON RESULTS OF MERCURY TESTS CONDUCTED BY JERSEY TESTING LABS., INC.

AFFILIATED WITH GEO. J. WOLF

ROVIC CONSTRUCTION CO., INC.
911 BERGEN AVENUE
JERSEY CITY, N.J. 07306
General Contractors & Engineers

TEST BORINGS	
WOODRIDGE	
SCALE	1" = 40'
DATE	12/6/74
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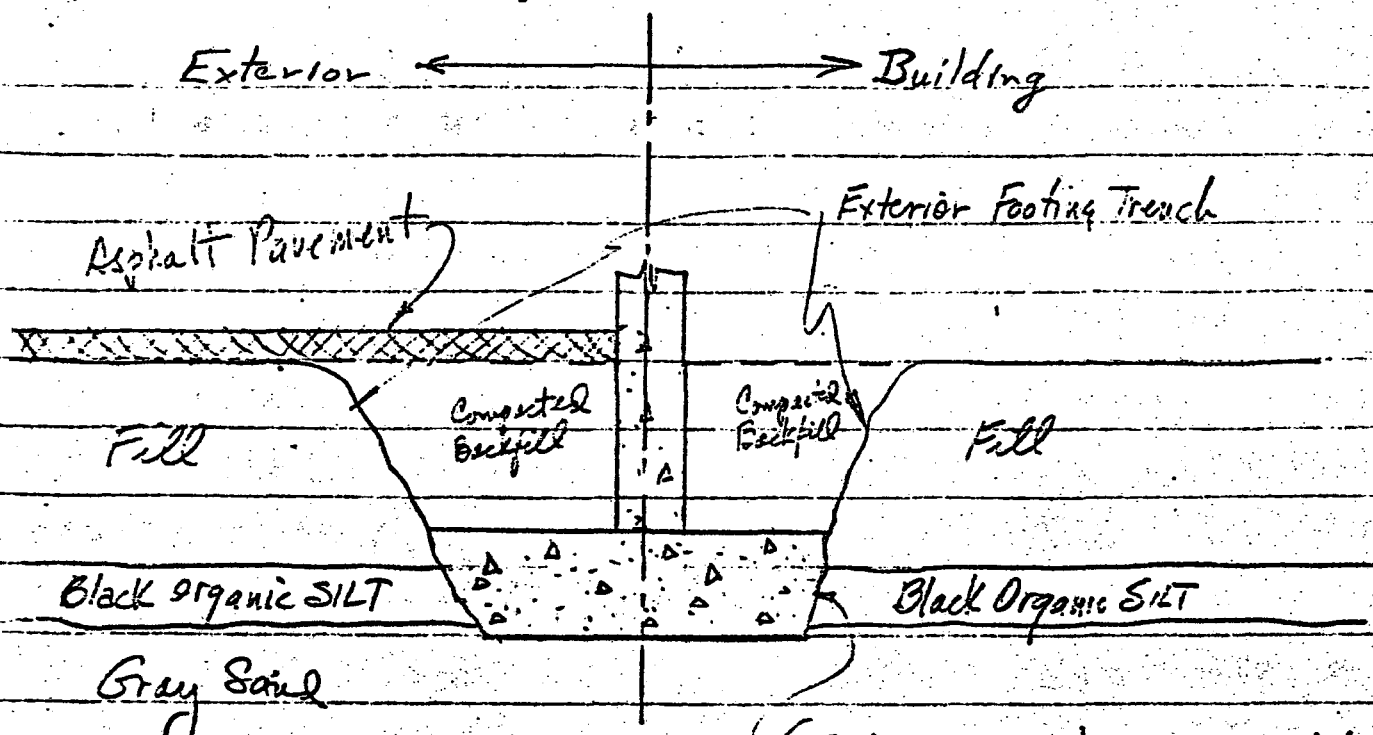
C7403-3



SCHEMATIC SECTION

FOOTING CONFIGURATION

WOODRIDGE DEVELOPMENT

J. S. WARD, INC.

CALDWELL, N.J.

(C7403-3)

JAN. 1975

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

43

2-SA-ER

December 18, 1974

Mercury Contamination, Ventron Site

Henry Gluckstern
Water Enforcement Branch
Region II
26 Federal Plaza
New York, New York 10007

Reference is made to past discussions between us, the New Jersey State Department of Environmental Protection, Rovic Construction and to Mike Polito's memorandums of July 24, 1974 and September 30, 1974, regarding the mercury contamination problem at the old Ventron site now being developed by Rovic Construction.

Based upon our last meeting with Rovic Construction and the State of New Jersey held on Tuesday, December 5, and Rovic Construction's letter to the State of New Jersey outlining their plan, it appears appropriate that we finalize: (a) our technical considerations regarding the problem; and (b) the legal authority upon which we can operate.

Based upon the thorough review by Mike Polito regarding the mercury contaminated soil, we would recommend that:

(1) Rovic cease all discharge of mercury contaminated surface water from their property greater than 0.01 mg/l;

(2) The chemical forms of mercury present in the soil be identified;

(3) The mercury contaminated soils be excavated to such depth that the total mercury concentration shall not exceed 0.05% (500 ppm), and that this excavated material be replaced with clean fill or mercury free reprocessed soil (.001 ppm maximum mercury content). NB that without extensive research we have no way of knowing exactly what level to establish as clean. This is our best estimate;

(4) No further development be allowed on the site unless immediate action on the excavated material is taken, whether it is disposed of in an approved land site according to proper techniques or a mercury decontamination process is employed;

SA/ERB:WLibrizzi:nde:Bldg.209:x592:12/18/74

CONCURRENCES

SYMBOL	SA/ERB							
SURNAME	LIBRIZZI							
DATE								

EPA FORM 1320-1

OFFICIAL FILE COPY

(5) Monitoring wells be established by Rovic to determine the extent of mercury ground water contamination;

(6) Air pollution studies be immediately established above the site to evaluate the extent of mercury transport in the air. We are arranging with our Surveillance Branch to conduct such a study; and

(7) No permanent structure be allowed to be constructed over the site in the event it becomes necessary to later excavate the area.

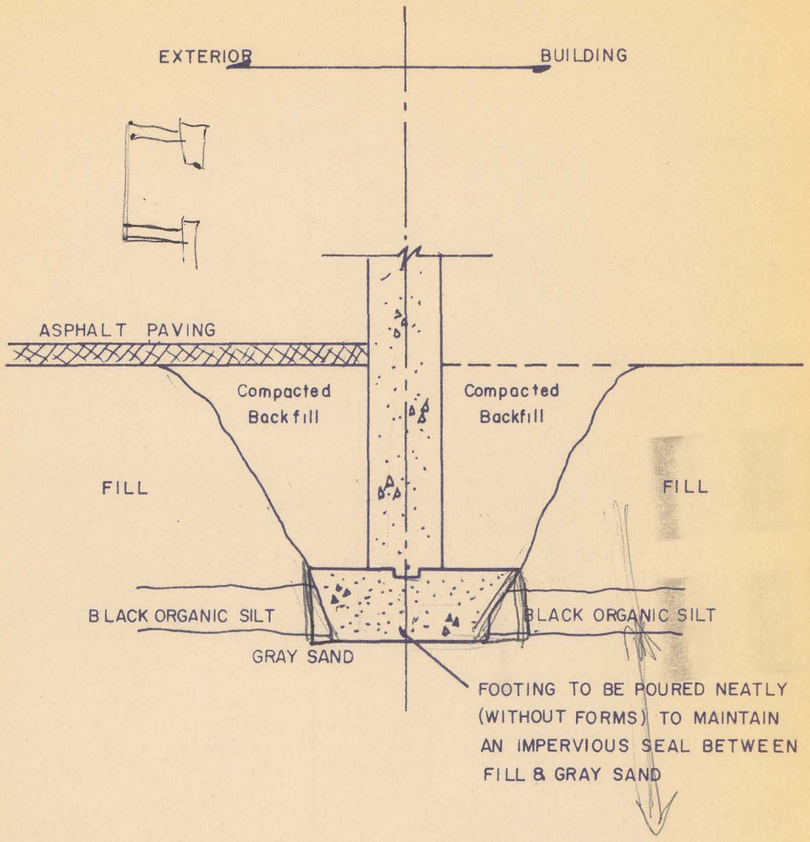
It is instructive to note that EPA, in its October 1973 Proposed Criteria for Water Quality, proposes to establish that concentrations of mercury in excess of 1.0 µg/l in marine or estuarine waters are unacceptable and that Water Quality Criteria, 1972, page 252, concludes that concentrations of mercury equal to or exceeding 0.10 µg/l constitute a hazard in the marine environment. We really have no way of actually establishing soil concentrations, leaching and recommended marine water levels.

The above recommendations will depend a great deal upon the legal "muscle" that we possess in regard to the Rovic problem. Several questions that we raised in the above referenced memorandums present our areas of concern in this regard.

New Jersey State Department of Environmental Protection, after consultation with us, had advised Mr. Andrews that their December 9 proposal is unacceptable. They are preparing an official response which will generally require the above recommendations.

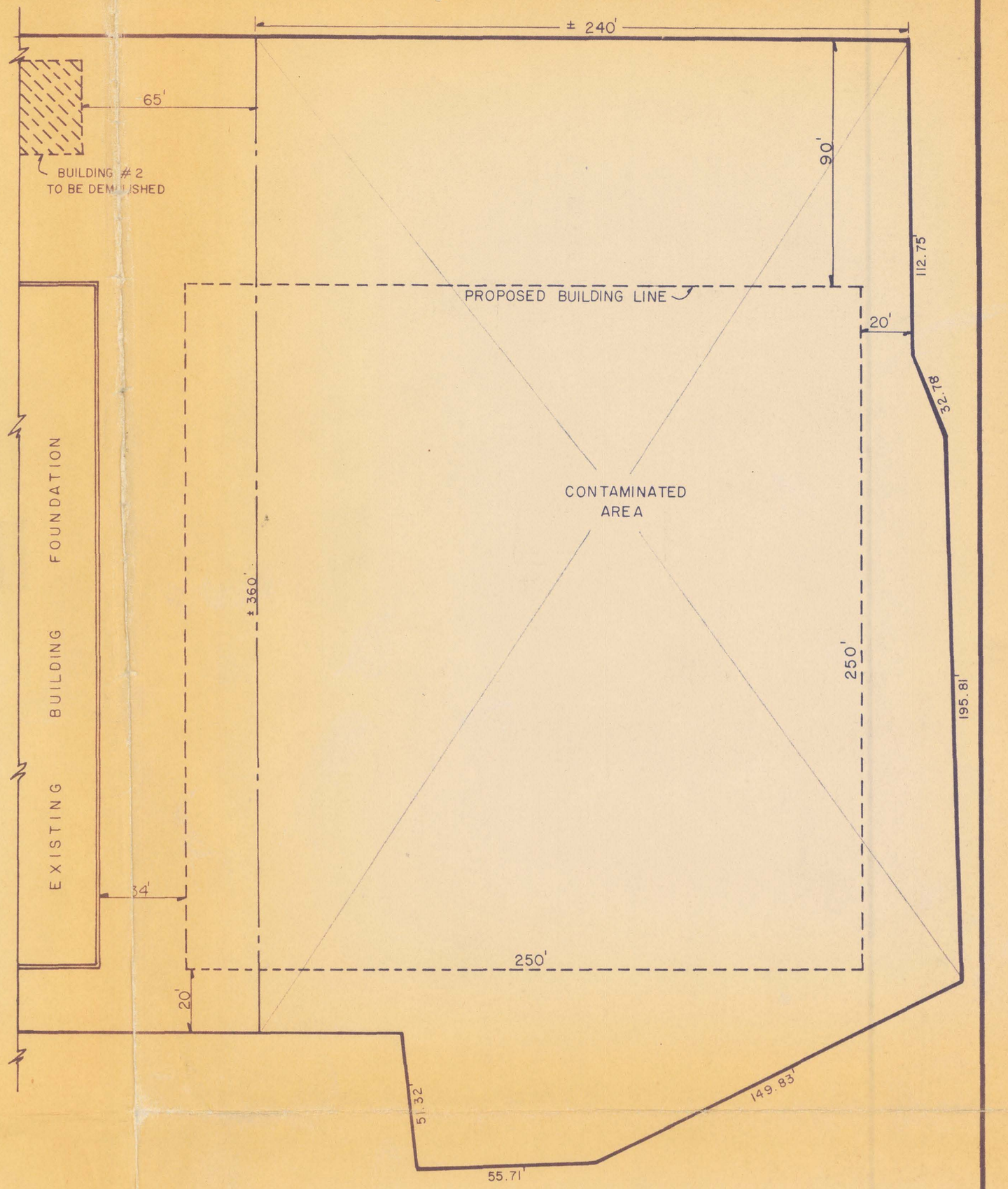
We. therefore, recommend that, based upon your legal evaluation, you advise us as to the limits of our legal authority. From an enforcement standpoint, what do you suggest as our next move? We believe the time has come to act.

William Librizzi
Chief
Emergency Response Branch



SECTION AT FOUNDATION WALL

SCALE 1/2" = 1'-0"



REVISIONS

AFFILIATED WITH GEO. J. WOLF FOUNDED 1905

ROVIC CONSTRUCTION CO., INC.
911 BERGEN AVENUE
JERSEY CITY, N.J. 07306
General Contractors & Engineers

PROJECT

LOCATION
WOODRIDGE, NEW JERSEY

SCALE 1" = 40'

DATE 1/3/75

SHEET

AFFILIATED WITH

ROVIC CONSTRUCTION CO., INC.

911 BERGEN AVENUE • JERSEY CITY, NEW JERSEY 07306 • (201) 653-6300 • N.Y. (212) 962-6840

RECEIVED 12/10/74 3:00 pm DEP

42

December 9, 1974

State of New Jersey
Department of Environmental Protection
John Fitch Plaza
P. O. Box 2807
Trenton, New Jersey 08625

Re: Wood-Ridge Development
Lot 10, Block 229
Park Place East
Wood-Ridge, New Jersey

ATTENTION: Mr. David Longstreet
Oil & Hazardous Materials Program

Gentlemen:

As per discussions with our consultants, Drs. Johnson & Ollis of Princeton University, the following is the procedure in which we request authorization to proceed with the development at the above referenced location. Upon completion of the development, the site area will be 50% covered by building area, and the remainder with bituminous paving.

Based upon the mercury analysis of samples conducted by Jersey Testing Laboratories, Inc., results of which are attached, the following procedures were used. Samples were obtained from the sides of pits excavated by a backhoe and from samples excavated with a post-hole digger. The weight of samples tested was 10 grams. The method of testing was the flameless atomic absorption method.

We propose to excavate the material from the site where the mercury analysis indicates the mercury content greater than 1%. The areas excavated will be backfilled and compacted with clean fill as soon as possible so that storm water cannot fill the excavated area and become contaminated.

Attached please find Drawing #M-1 dated 12/6/74 indicating the areas to be excavated and the area to be used for stock piling of material. All excavated material shall be stock piled on the jobsite and covered with a polyethelene vapor barrier that shall be securely held in place to prevent the contaminated material from being washed into the building area.

what about into water?

State of New Jersey
Dept. of Environmental Protection

December 9, 1974

As recommended by Drs. Johnson and Ollis, the following is their recommendations to develop practicable procedures for reducing the mercury content of the stored earth to levels acceptable for disposal of the earth. It is their belief that a major fraction of the mercury occurs in the form of visible metallic droplets of small diameter. Bench top experiments show that these droplets will attach themselves to the oily surface layer between the air and an aerated slurry of water and soil. These pendant droplets will aggregate but not coalesce and will continue to float at all times provided the surface is not severely disturbed. Thus, separation of metallic mercury from the soil by aeration-induced flotation appears feasible. Furthermore, the separation can probably be effected without any significant production of aqueous wastes. Since the separation involves operation at ambient conditions, the hazards associated with the process can be minimal.

Whether further treatment to deal with mercury in combined form will be required will depend on the results of the development studies now being undertaken.

We anticipate that the development studies can be accomplished within about one month and that the processing of the stored earth can be completed within about ten months.

Details of the proposed experiments and studies are summarized below:

1. Ascertain the distribution of mercury between metallic and combined states.
2. For separation of the metallic mercury identify the optimal process parameters for the flotation scheme, viz. air rates, aeration times and the like.
3. For chemically combined mercury, explore possible processing schemes and also possible disposition through waste processing firms.

I trust the above information meets with your satisfaction and should you require any additional information, please do not hesitate to contact me. In order that we may proceed as rapidly as possible with this project, we would greatly appreciate hearing from you at your earliest convenience.

Very truly yours,

John Andrews

John Andrews,
Vice President

JA:ic
encls.
cc: Mr. Michael V. Polito, Chemist ✓
Dr. E. F. Johnson
Dr. D. F. Ollis
Mr. Robert M. Wolf

41

2-SA-ER December 6, 1974

Meeting with Rovic Construction concerning old Ventron Site

William Librizzi
Chief, Emergency Response Branch

At the request of the Rovic Construction Company, a meeting was convened on December 5, 1974, at 10:00 a.m. at the Edison facility of EPA. The following persons were in attendance at the meeting:

Henry Gluckstern
David Longstreet
Michael V. Polito
John Andrews
Robert Wolf
Ernest F. Johnson

Mr. Longstreet chaired the meeting. John Andrews submitted data collected on the establishment of a grid system. Mr. Andrews made a proposal that only those areas that mercury exceeded 1.0% should be excavated.

Mr. Johnson, Chemical Engineer, retained by Rovic (or Wolf) briefly outlined plans for treatment of mercury contamination at Ventron site.

Mr. Wolf wanted to know if we approved their proposal.

I requested that proposal be submitted in writing, all details to be included. We would study and make proposals.

I again advised that memorandum of understanding had not been followed in sampling plan paragraph. Additional data would have to be supplied to me on their method, as well as NJSDEP.

Wolf and Andrews requested quick action. I advised them that it is their hesitation in the past that has caused delay.

They were advised that, in essence, their verbal plan did not change in principle from the memorandum of understanding, except the proposal to limit excavation sites.

SA/ERB:MVPolito:nde:Bldg.209:x598:12/6/75

SA/ERB SA/ERB
POLITO LIBRIZZI

I supplied John Andrews with copy of hazardous materials regulation and possible maximum fines and penalties due under these regulations.

Michael V. Polito
Physical Scientist
Emergency Response Branch

ATTENDANCE LIST
December 5, 1974 Meeting

Henry Gluckstern	Attorney, EPA, Region II
David C. Longstreet	New Jersey State Department of Environmental Protection
Michael Polito	EPA, Region II
John Andrews	Rovic Construction Co., Inc.
Robert Wolf	Site Owner
Ernest F. Johnson	Department of Chemical Engineering, Princeton, University

Henry Glukstern	Attorney, EPA Region II
DAVID C. LONGSTREET	N.J. D/E.P.
Mike Polito	EPA
[illegible]	Route Comit Co Inc.
[illegible]	OWNER.
Ernest F. Johnson	Dept Chem. Eng., Princeton Univ.

FORM 16

JERSEY TESTING LABORATORIES INC.

ENGINEERS, LABORATORY AND INSPECTION SERVICE S-3344

154-156 WRIGHT STREET At MacCarter Highway NEWARK, N. J.

ATCO, N. J. OFFICE
ROUTE #30, WHITEHORSE PIKE

10 - 1 - 74

1st Report of Test

Order No. NM-1439

Contract No.

CLIENT: Rovic Construction Company
FOR: Mercury determination

Lab.#	Identification	% Mercury
C-49957	D-4, S-1, 0'-1'.	0.152
C-49958	D-4, S-2, 1'-2'.	1.748
C-49959	D-4, S-3, 2'-3'.	0.228
C-49960	D-5, S-1, 0'-1'.	2.280
C-49961	D-5, S-2, 1'-2'.	0.722
C-49962	E-1, S-1, 6"-1'.	0.214
C-49963	E-1, S-2, 1'-2'.	0.798
C-49964	E-1, S-3, 2'-3'.	0.475
C-49965	E-2, S-1, 1'-2'.	0.342
C-49966	E-2, S-2, 2'-3'.	0.798
C-49967	E-3, S-1, 6"-1'.	4.845
C-49968	E-3, S-2, 1'-2'.	1.083
C-49969	E-3, S-3, 2'-3'.	0.247
C-49970	E-4, S-1, 0'-1'.	0.475
C-49971	E-4, S-2, 1'-2'.	2.375
C-49972	E-4, S-3, 2'-3'.	0.627
C-49973	E-5, S-1, 6"-1'.	5.415
C-49974	E-5, S-2, 1'-2'.	4.750
C-49975	E-5, S-3, 2'-3'.	0.760
C-49976	F-1, S-1, 0'-1'.	9.975
C-49977	F-1, S-2, 1'-2'.	0.247
C-49978	F-1, S-3, 2'-3'.	0.190
C-49979	F-2, S-1, 6"-1'.	0.475
C-49980	F-2, S-2, 1'-2'.	0.190
C-49981	F-2, S-3, 2'-3'.	0.190
C-49982	F-3, S-1, 6"-1'6".	0.399
C-49983	F-3, S-2, 1'6"-2'6".	0.161
C-49984	F-3, S-3, 2'6"-3'.	0.636
C-49985	F-4, S-1, 0'-1'.	0.076
C-49986	F-4, S-2, 1'-2'.	0.008
C-49987	F-4, S-3, 2'-3'.	0.323
C-49988	F-5, S-1, 0'-1'.	1.710
C-49989	F-5, S-2, 1'-2'.	11.305
C-49990	F-5, S-3, 2'-3'.	14.250
C-49991	G-1, S-1, 6"-1'.	0.380
C-49992	G-1, S-2, 1'-2'.	0.143
C-49993	G-1, S-3, 2'-3'.	0.285

64277 E37

FORM 16

JERSEY TESTING LABORATORIES INC.

ENGINEERS, LABORATORY AND INSPECTION SERVICE S-3344

154-156 WRIGHT STREET At McCarter Highway NEWARK, N. J.

ATCO, N. J. OFFICE
ROUTE #30, WHITEHORSE PIKE

10- 1- 74

1st Report of Test

Order No. NM-1439

Contract No.

CLIENT: Rovic Construction Company
FOR: Mercury determination

Lab#	Identification	% Mercury
C-49994	G-2, S-1, 6"-1'.	0.100
C-49995	G-2, S-2, 1'-2'.	0.095
C-49996	G-2, S-3, 2'-3'.	0.323
C-49997	G-3, S-1, 0'-1'.	3.726
C-49998	G-3, S-2, 1'-2'.	1.900
C-49999	G-3, S-3, 2'-3'.	0.162
C-50000	G-4, S-1, 6"-1'.	0.304
C-50001	G-4, S-2, 1'-2'.	1.102
C-50002	G-4, S-3, 2'-3'.	0.144
C-50003	G-5, S-1, 0'-1'.	0.162
C-50004	G-5, S-2, 1'-2'.	1.292
C-50005	G-5, S-3, 2'-3'.	2.413
C-50006	H-1, S-1, 0'-1'.	0.180
C-50007	H-1, S-2, 1'-2'.	0.152
C-50008	H-1, S-3, 2'-3'.	0.285
C-50009	H-2, S-1, 0'-1'.	0.247
C-50010	H-2, S-2, 1'-2'.	1.425
C-50011	H-2, S-3, 2'-3'.	0.152
C-50012	H-3, S-1, 6"-1'.	0.009
C-50013	H-3, S-2, 1'-2'.	0.005
C-50014	H-3, S-3, 2'-3'.	0.152
C-50015	H-4, S-1, 6"-1'.	0.007
C-50016	H-4, S-2, 1'-2'.	0.007
C-50017	H-4, S-3, 2'-3'.	0.003
C-50018	H-5, S-1, 0'-1'.	0.756
C-50019	H-5, S-2, 1'-2'.	0.950
C-50020	H-5, S-3, 2'-3'.	1.083

Note: Sample will be discarded if not picked up by client's representative within thirty (30) days.

Chemist: M.N. Elsaady
M.N. Elsaady
Tech.: S.B., J.T.

Respectfully submitted,
JERSEY TESTING LABORATORIES INC.

BY:

Copies issued to:
3-Rovic Construction Company
911 Bergen Avenue
Jersey City, N.J.

JW/rj

FORM 16

JERSEY TESTING LABORATORIES INC.

ENGINEERS, LABORATORY AND INSPECTION SERVICE S-3344

154-156 WRIGHT STREET At McCarter Highway NEWARK, N. J.

ATCO, N. J. OFFICE
ROUTE #30, WHITEHORSE PIKE

10- 1- 74

.....1st.....Report of Test

Order No. NM-1439

Contract No.

CLIENT: Rovic Construction Company
SAMPLES OF: Soil
FOR: Mercury determination
REPORTED TO: Rovic Construction Company

We submit herewith the results of tests conducted on the samples selected, identified by client, drilled and sampled by Jersey Testing Laboratories representative as reported to you on 9-26-74 along with our letter of transmittal (S-3106).

Lab.#	Identification	% Mercury
C-49928	B-1, S-1, 9"-1' 9".	1.900
C-49929	B-1, S-2, 1' 9"-2' 9".	8.835
C-49930	B-1, S-3, 2' 9"-3'.	1.900
C-49931	B-2, S-1, 8"-1'.	1.653
C-49932	B-2, S-2, 1'-2'.	0.893
C-49933	B-2, S-3, 2'-3'.	0.190
C-49934	B-3, S-1, 2'-3'.	0.627
C-49935	B-4, S-1, 0'-1'.	0.760
C-49936	B-4, S-2, 1'-2'.	0.152
C-49937	B-4, S-3, 2'-3'.	0.285
C-49938	C-1, S-1, 1'-2'.	0.551
C-49939	C-1, S-2, 2'-3'.	0.304
C-49940	C-2, S-1, 1'-2'.	0.788
C-49941	C-2, S-2, 2'-3'.	0.304
C-49942	C-3, S-1, 1' 6"-2'.	0.608
C-49943	C-3, S-2, 2' 6"-3'.	0.589
C-49944	C-4, S-1, 6"-1'.	1.900
C-49945	C-4, S-2, 1'-2'.	0.304
C-49946	C-4, S-3, 2'-3'.	0.190
C-49947	C-5 Removed by back, Hoe.	0.247
C-49948	D-1, S-1, 6"-1'.	0.300
C-49949	D-1, S-2, 1'-2'.	0.133
C-49950	D-1, S-3, 2'-3'.	0.133
C-49951	D-2, S-1, 0'-1'.	1.425
C-49952	D-2, S-2, 1'-2'.	0.570
C-49953	D-2, S-3, 2'-3'.	0.513
C-49954	D-3, S-1, 8"-1'.	0.475
C-49955	D-3, S-2, 1'-2'.	0.456
C-49956	D-3, S-3, 2'-3'.	0.133

10/0

Contam. Area 3 ft x 432 x 240 = c

432
240
17280
864
103680
3
311,040 cuft

27
300,000
9

should be higher

311,040 cuft x 7.5 gal/cuft x (8.5) lbs/gal. ≈ 19,904,000 lbs.

19,904,000 x .01 = 199,040 lbs.

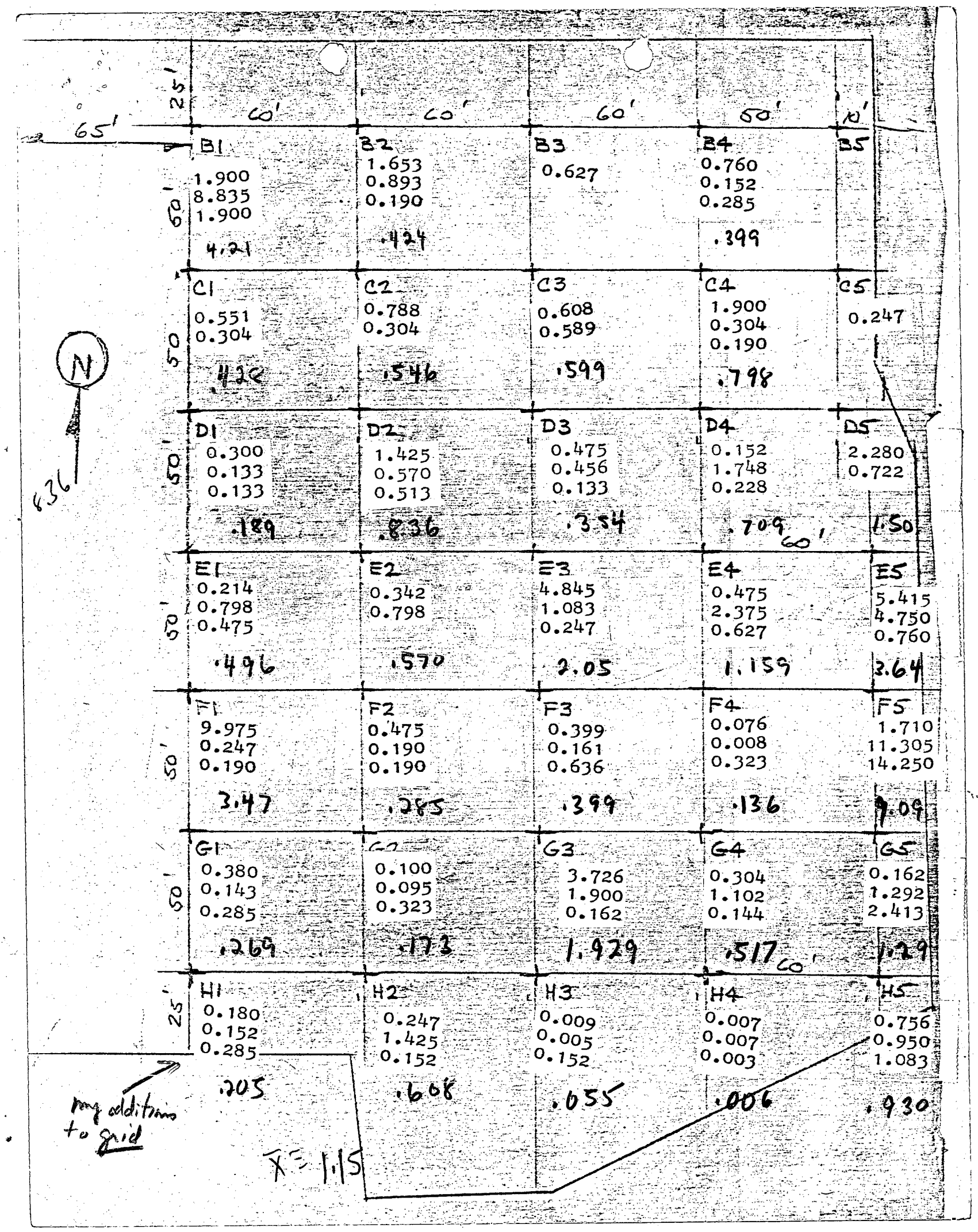
corrected density of soil 1.3 258,700

Harmful Quantity = 21 lbs
Mercuric sulfate
estuary

Penalty per Harmful Quantity. = $620/lbs.
estuary.

$2 \times 10^5 \times 6.2 \times 10^2 = 1248 \times 10^7$

$1,248,000,00 \doteq 125,000,000$


65'
25'
60'
60'
60'
50'
10'
60'
50'
50'
50'
50'
50'
25'
60'
10'
B1
1.900
8.835
1.900
4.21
B2
1.653
0.893
0.190
.424
B3
0.627
B4
0.760
0.152
0.285
.399
B5
C1
0.551
0.304
.426
C2
0.788
0.304
.546
C3
0.608
0.589
.599
C4
1.900
0.304
0.190
.798
C5
0.247
D1
0.300
0.133
0.133
.189
D2
1.425
0.570
0.513
.836
D3
0.475
0.456
0.133
.354
D4
0.152
1.748
0.228
.709
D5
2.280
0.722
1.50
E1
0.214
0.798
0.475
.496
E2
0.342
0.798
.570
E3
4.845
1.083
0.247
2.05
E4
0.475
2.375
0.627
1.159
E5
5.415
4.750
0.760
3.64
F1
9.975
0.247
0.190
3.47
F2
0.475
0.190
0.190
.285
F3
0.399
0.161
0.636
.399
F4
0.076
0.008
0.323
.136
F5
1.710
11.305
14.250
9.09
G1
0.380
0.143
0.285
.269
G2
0.100
0.095
0.323
.173
G3
3.726
1.900
0.162
1.929
G4
0.304
1.102
0.144
.517
G5
0.162
1.292
2.413
1.29
H1
0.180
0.152
0.285
.205
H2
0.247
1.425
0.152
.608
H3
0.009
0.005
0.152
.055
H4
0.007
0.007
0.003
.006
H5
0.756
0.950
1.083
.930
N
836
my additions to grid
X = 1.15

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

40

2-SA-ER December 6, 1974

Toxicity of Mercury, Ventron Case

William Librizzi
Chief, Emergency Response Branch

On December 5, you gave me the assignment of documenting the toxicity of mercury, stimulated of course by our involvement in the "Ventron case". In effect, this would be a redundancy of many efforts already put together by many researchers. I had, of course, previously made readings in the subject long before receiving the assignment. I have attached a copy of a report entitled "Hazards of Mercury", which is quite complete. This book treats the following topics:

1. Medical Implications of Ingestion of Mercury
2. Microbial Transformation of Mercury
3. Sources, Distribution and Control
4. Ecologic Effects of Methylmercury Contamination
5. Farming-Food-Forestry
6. Airborne Mercury
7. Analytical Methods

I have read and, again, reread the book (quite naturally) and have culled out the following important points. Naturally, please bear in mind the danger of quoting out of text.

Page 7 - Based upon their research it is recommended:

"to use all possible means to reduce exposure to mercury immediately"

Pages 6 and 7 - "overt mercury poisoning from the consumption of fish...as normally marketed, in this country", is not expected. Individual poisoning is possible, as well as subclinical effects including neurological and intellectual damage.

Page 8 - "decontamination of existing deposits in thus of the utmost urgency." An intensive program aimed at the decontamination of existing deposits should be initiated immediately.

The above paragraph was directed primarily to sediments of waterways which has pertinent relevancy to our case.

SA/ERB:MVPolito:nde:Bldg.209:x598:12/6/74

CONCURRENCES

SYMBOL	SA/ERB	SA/ERB						
SURNAME	POLITO	LIBRIZZI						
DATE	12/6	12/6						

EPA FORM 1320-1

OFFICIAL FILE COPY

Page 22 - FDA guideline in fish is 0.5 ppm.

Page 23 - "methylation of mercury in sediments on river and lake bottoms is the process which...is responsible for current and potentially future contamination of aqueous systems and their associated biota."

Page 28 - "methylation of mercury can yield at least two different find products - monomethylmercury or dimethylmercury...The methylated product is directly accumulated by organisms in water, while the dimethylated form is purported to leave the limnic ecosystem and go into the atmosphere."

Page 35 - "Birds have been seriously - sometimes catastrophically - affected by mercury."

Page 46 - In mill sites where mercurial compounds have been used in pulp and paper manufacture, mercury is bound to sediments where they may release mercury into the water for many years. "In areas where new organic materials cover the old, oxygen requirements of decay processes may maintain anaerobic conditions in the old sediments. This would minimize the release of mercury. As old mercury containing sediments were buried more deeply, release of mercury would cease."

Page 53 - Concern is expressed over the mercury levels in air.

If the attached report is not sufficient and more extensive review is desired, please advise.

Michael V. Polito
Physical Scientist
Emergency Response Branch

Attachment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

39

2-SA-ER

December 6, 1974

Mercury Contamination - Ventron Site

William Librizzi
Chief, Emergency Response Branch

Based upon a thorough review of the mercury contamination of the Ventron site and discussions related thereto, I recommend the following:

(1) That Rovice Construction cease all discharges of mercury contaminated water from their property;

(2) That an Environmental Impact Statement be prepared on the development of the property by Rovic Construction;

(3) That if we have the authority to require that mercury contaminated soils be treated to remove mercury from the Ventron site, we exercise this authority with no concession. Based upon data submitted by Rovic Construction (John Andrews) and Robert Wolf on December 5, 1974, that all soils specified in the memorandum of understanding, paragraph 9, be excavated to such depth as mercury levels reach a non-transport level (to be determined by research by developer);

(4) Monitoring wells be established by the Rovic Company to determine the extent of mercury ground water contamination;

(5) That the chemical forms of mercury present be identified;

(6) That no permanent structure be allowed to be constructed over the site in the event it became necessary to later excavate the area (forever);

(7) That current violations of discharge permit regulations be processed;

(8) That air pollution studies be immediately established above the site to evaluate the extent of mercury transportation in the air; and

SA/ERB:MVPolito:nde:Bldg.209:x598:12/6/74

CONCURRENCES

SYMBOL	SA/ERB	SA/ERB						
SURNAME	POLITO	LIBRIZZI						
DATE	12/6/74							

EPA FORM 1320-1

OFFICIAL FILE COPY

(9) That no further development be allowed to proceed (if within our authority) on the site unless immediate action on excavated material will be taken, whether it be disposal at an approved land site according to proper techniques or mercury decontamination.

Michael V. Polito
Physical Scientist
Emergency Response Branch

38

2-SA-ER

October 7, 1974

Storm Ditch - Ventron Site

Henry Gluckstern
Water Enforcement Branch
Enforcement and Regional
Counsel Division
EPA, Region II
26 Federal Plaza
New York, New York 10007

THRU: William Librizzi, Chief, Emergency Response Branch

Attached is a copy of a letter by Mr. Ed Faille of the New Jersey State Department of Environmental Protection, submitted in testimony that the storm ditch which was contaminated with mercury (my memo dated 9/30/74) was traced to Berrys Creek, a navigable water of the United States.

Michael V. Polito
Emergency Response Branch

Attachment

SA/ERB:MVPolito:nde:Bldg.209:x598:10/7/74

SA/ERB SA/ERB
POLITO LIBRIZZI

37

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
TRENTON, NEW JERSEY 08625

October 1, 1974

Mr. Mike Polito
U. S. Environmental Protection Agency
Region II
Edison, New Jersey

Dear Mr. Polito:

On September 19, 1974 during an inspection with you of the Rovic Construction Company site on the old Ventron property, I showed you a ditch that Larry Lepre (Rovic superintendent) said he had dug to let the rain water run off the property.

This ditch on the south side of the property runs into a storm ditch which I have traced to be a tributary of Berrys Creek. I took samples of the ditch that Larry Lepre dug. I also took samples above the ditch and below the ditch.

Very truly yours,

Edward J. Faille

Edward J. Faille
Senior Environmental Technician
Special Services
Operation and Enforcement Element

A11:G10

FORM 16

JERSEY TESTING LABORATORIES INC.

34

ENGINEERS, LABORATORY AND INSPECTION SERVICE

154-156 WRIGHT STREET At McCarter Highway NEWARK, N. J.

ATCO, N. J. OFFICE
ROUTE #30, WHITEHORSE PIKE

10- 1- 74

1st Report of Test

Order No. NM-1439

Contract No.

CLIENT: Rovic Construction Company
SAMPLES OF: Soil
FOR: Mercury determination
REPORTED TO: Rovic Construction Company

We submit herewith the results of tests conducted on the samples selected, identified by client, drilled and sampled by Jersey Testing Laboratories representative as reported to you on 9-26-74 along with our letter of transmittal (S-3106).

Lab.#	Identification	% Mercury
C-49928	B-1, S-1, 9"-1' 9".	1.900
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C-49941	C-2, S-2, 2'-3'.	0.304
C-49942	C-3, S-1, 1' 6"-2'.	0.608
C-49943	C-3, S-2, 2' 6"-3'.	0.589
C-49944	C-4, S-1, 6"-1'.	1.900
C-49945	C-4, S-2, 1'-2'.	0.304
C-49946	C-4, S-3, 2'-3'.	0.190
C-49947	C-5 Removed by back, Hoe.	0.247
C-49948	D-1, S-1, 6"-1'.	0.300
C-49949	D-1, S-2, 1'-2'.	0.133
C-49950	D-1, S-3, 2'-3'.	0.133
C-49951	D-2, S-1, 0'-1'.	1.425
C-49952	D-2, S-2, 1'-2'.	0.570
C-49953	D-2, S-3, 2'-3'.	0.513
C-49954	D-3, S-1, 8"-1'.	0.475
C-49955	D-3, S-2, 1'-2'.	0.456
C-49956	D-3, S-3, 2'-3'.	0.133

FORM 16

JERSEY TESTING LABORATORIES INC.

ENGINEERS, LABORATORY AND INSPECTION SERVICE S-3344

154-156 WRIGHT STREET At McCarter Highway NEWARK, N. J.

ATCO, N. J. OFFICE
ROUTE #30, WHITEHORSE PIKE

10 - 1 - 74

1st Report of Test

Order No. NM-1439

Contract No.

CLIENT: Rovic Construction Company
FOR: Mercury determination

Lab.#		Identification	% Mercury
C-49957		D-4, S-1, 0'-1'.	0.152
C-49958	X	D-4, S-2, 1'-2'.	1.748
C-49959		D-4, S-3, 2'-3'.	0.228
C-49960		D-5, S-1, 0'-1'.	2.280
C-49961		D-5, S-2, 1'-2'.	0.722
C-49962		E-1, S-1, 6"-1'.	0.214
C-49963		E-1, S-2, 1'-2'.	0.798
C-49964		E-1, S-3, 2'-3'.	0.475
C-49965		E-2, S-1, 1'-2'.	0.342
C-49966	X	E-2, S-2, 2'-3'.	0.798
C-49967		E-3, S-1, 6"-1'.	4.845
C-49968		E-3, S-2, 1'-2'.	1.083
C-49969		E-3, S-3, 2'-3'.	0.247
C-49970		E-4, S-1, 0'-1'.	0.475
C-49971	X	E-4, S-2, 1'-2'.	2.375
C-49972		E-4, S-3, 2'-3'.	0.627
C-49973		E-5, S-1, 6"-1'.	5.415
C-49974		E-5, S-2, 1'-2'.	4.750
C-49975		E-5, S-3, 2'-3'.	0.760
C-49976		F-1, S-1, 0'-1'.	9.975
C-49977		F-1, S-2, 1'-2'.	0.247
C-49978		F-1, S-3, 2'-3'.	0.190
C-49979		F-2, S-1, 6"-1'.	0.475
C-49980	X	F-2, S-2, 1'-2'.	0.190
C-49981		F-2, S-3, 2'-3'.	0.190
C-49982		F-3, S-1, 6"-1'6".	0.399
C-49983	X	F-3, S-2, 1'6"-2'6".	0.161
C-49984		F-3, S-3, 2'6"-3'.	0.636
C-49985		F-4, S-1, 0'-1'.	0.076
C-49986	X	F-4, S-2, 1'-2'.	0.008
C-49987		F-4, S-3, 2'-3'.	0.323
C-49988		F-5, S-1, 0'-1'.	1.710
C-49989	XX	F-5, S-2, 1'-2'.	11.305
C-49990		F-5, S-3, 2'-3'.	14.250
C-49991		G-1, S-1, 6"-1'.	0.380
C-49992	X	G-1, S-2, 1'-2'.	0.143
C-49993		G-1, S-3, 2'-3'.	0.285

FORM 16

JERSEY TESTING LABORATORIES INC.

ENGINEERS, LABORATORY AND INSPECTION SERVICE S-3344

154-156 WRIGHT STREET At McCarter Highway NEWARK, N. J.

ATCO, N. J. OFFICE
ROUTE #30, WHITEHORSE PIKE

10- 1- 74

1st Report of Test Order No. NM-1439

Contract No.

CLIENT: Rovic Construction Company
FOR: Mercury determination

Lab#		Identification	% Mercury
C-49994		G-2, S-1, 6"-1'.	0.100
C-49995	X	G-2, S-2, 1'-2'.	0.095
C-49996		G-2, S-3, 2'-3'.	0.323
C-49997		G-3, S-1, 0'-1'.	3.726
C-49998		G-3, S-2, 1'-2'.	1.900
C-49999		G-3, S-3, 2'-3'.	0.162
C-50000		G-4, S-1, 6"-1'.	0.304
C-50001		G-4, S-2, 1'-2'.	1.102
C-50002		G-4, S-3, 2'-3'.	0.144
C-50003		G-5, S-1, 0'-1'.	0.162
C-50004	X	G-5, S-2, 1'-2'.	1.292
C-50005		G-5, S-3, 2'-3'.	2.413
C-50006		H-1, S-1, 0'-1'.	0.180
C-50007	X	H-1, S-2, 1'-2'.	0.152
C-50008		H-1, S-3, 2'-3'.	0.285
C-50009		H-2, S-1, 0'-1'.	0.247
C-50010		H-2, S-2, 1'-2'.	1.425
C-50011		H-2, S-3, 2'-3'.	0.152
C-50012		H-3, S-1, 6"-1'.	0.009
C-50013	X	H-3, S-2, 1'-2'.	0.005
C-50014		H-3, S-3, 2'-3'.	0.152
C-50015		H-4, S-1, 6"-1'.	0.007
C-50016		H-4, S-2, 1'-2'.	0.007
C-50017		H-4, S-3, 2'-3'.	0.003
C-50018		H-5, S-1, 0'-1'.	0.756
C-50019	X	H-5, S-2, 1'-2'.	0.950
C-50020		H-5, S-3, 2'-3'.	1.083

Note: Sample will be discarded if not picked up by client's representative within thirty (30) days.

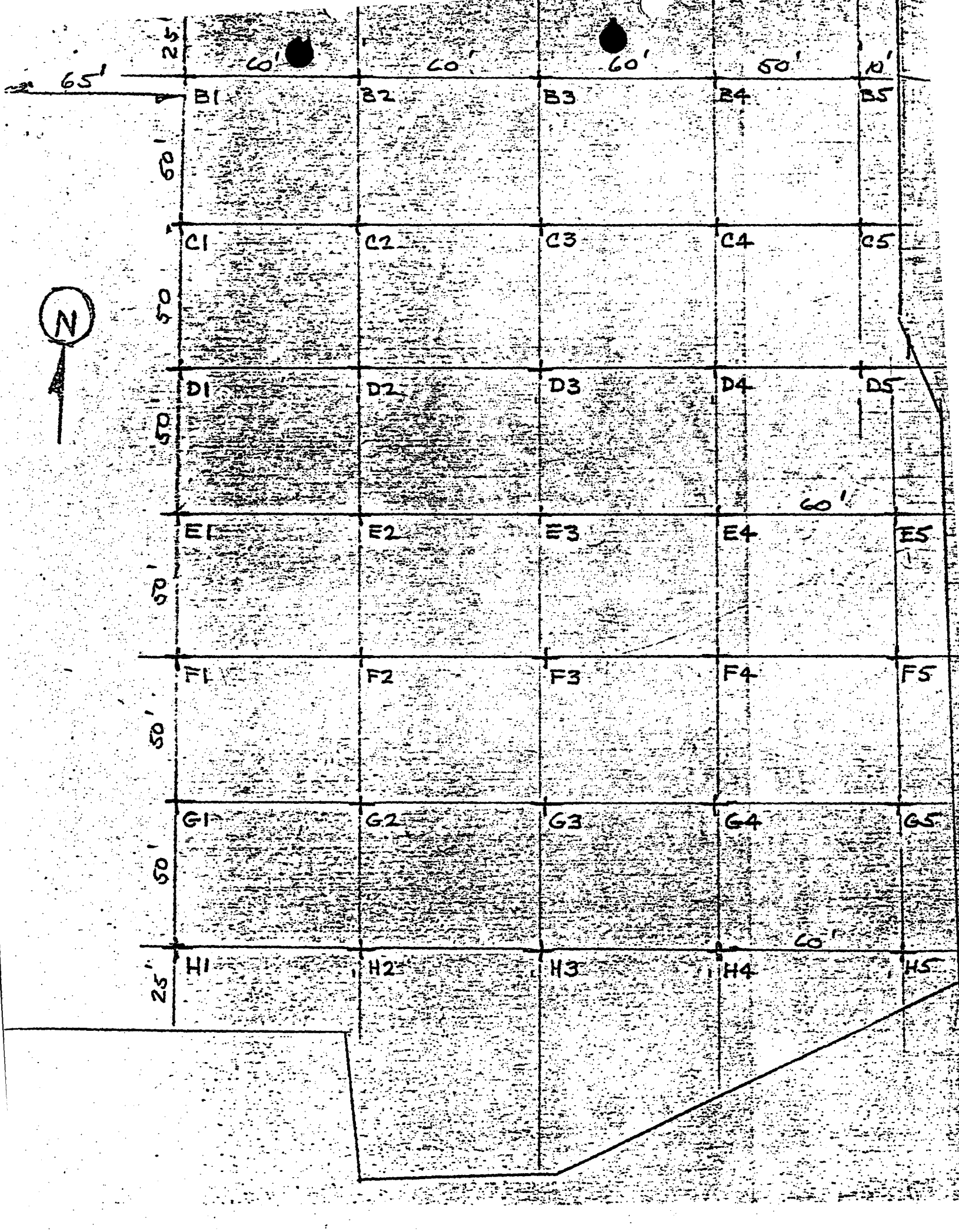
Chemist: M.N. Elsaady
M.N. Elsaady
Tech.: S.B., J.T.

Respectfully submitted,
JERSEY TESTING LABORATORIES INC.

BY:

Copies issued to:
3-Rovic Construction Company
911 Bergen Avenue
Jersey City, N.J.

JW/rj


25'
60'
60'
60'
50'
10'
65'
B1
B2
B3
B4
B5
60'
C1
C2
C3
C4
C5
N
50
D1
D2
D3
D4
D5
50
60'
E1
E2
E3
E4
E5
50'
F1
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F3
F4
F5
50'
G1
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G3
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50'
60'
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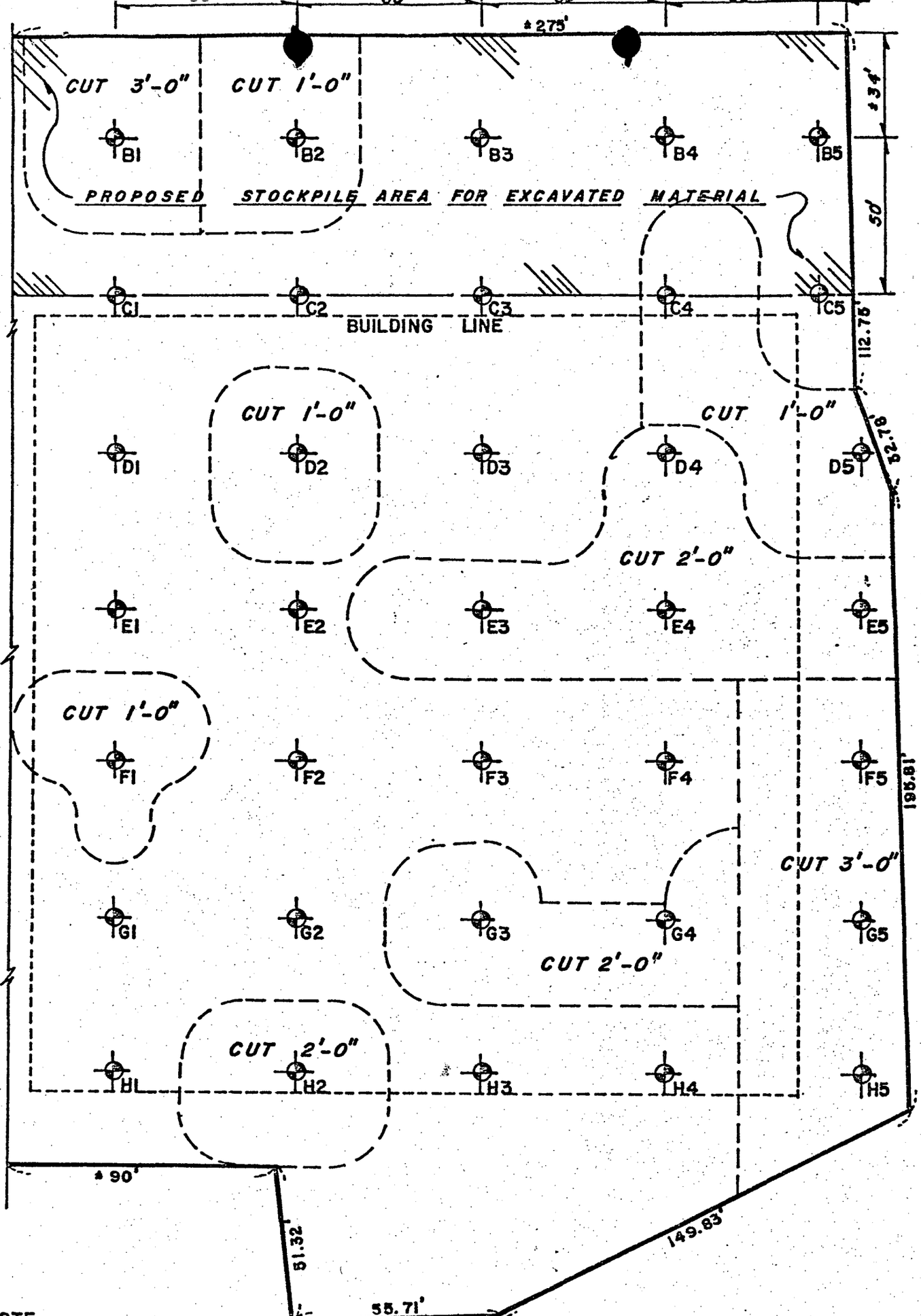
H1
H2
H3
H4
H5



NOTE

PROPOSED AREAS AND DEPTH OF EXCAVATION ARE BASED UPON MERCURY CONTENT OF SOIL BEARING GREATER THAN 1% BASED UPON RESULTS OF MERCURY TESTS CONDUCTED BY JERSEY TESTING LABS., INC.

AFFILIATED WITH GEO. J. WOLF

ROVIC CONSTRUCTION CO., INC.
911 BERGEN AVENUE
JERSEY CITY, N.J. 07306
General Contractors & Engineers

TEST BORINGS	
WOODRIDGE	
SCALE	1" = 40'
DATE	12/6/74
SHEET	M-1

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

35

REPLY TO ATTN OF: 2-SA-ER

DATE: September 30, 1974

SUBJECT: Ventron - RAPP Violation

TO:

Henry Gluckstern
Attorney, Water Enforcement Branch
Enforcement & Regional Counsel Division
EPA, Region II
26 Federal Plaza
New York, New York 10007

THRU: William Librizzi, Chief, Emergency Response Branch

On September 19, 1974, I visited the Rovic construction site, the land previously owned and operated by the Ventron Corporation, accompanied by Mr. Ed Faille of the New Jersey State Department of Environmental Protection.

The purpose of the visit was to check on the adherence of the Ventron Corporation to the Memorandum of Understanding of August 6, 1974. As indicated on my memorandum to the file of September 19, 1974, I discovered, by accident, that Rovic had proceeded with additional test borings of their site, without adhering to the provisions of paragraph (8) of the Memorandum of Understanding. While this is not a violation of the agreement per se, as they have not asked for any consideration for their additional testing, it might become a violation in the future if they submit such results without having their plans approved.

While on the site, Mr. Faille and I discovered a drainage canal, approximately one foot wide and thirty feet long, extending north into the construction site and emptying into a drainage ditch running along the southern fence. A portion of Rovic drawing A1-3579 is attached showing the approximate location of this ditch. Mr. Lepre was questioned about the ditch, and he replied that he dug the ditch for the purpose of eliminating puddles on the construction site. The construction operation on that site was a land filling operation in which the land elevation was being raised approximately three feet.

The ditch was filled with water. This canal water was draining into the open ditch. The water in the open ditch was also flowing. This open ditch is known to empty into Berrys Creek, a navigable water of the United States. Samples were taken, as indicated on the attached drawing. The value for these samples are given below:

Sample Number	Mercury ug/liter
42005	15,800
42006	1.1
42007	940

Mr. Depre, as well as Mr. Andrews, had been advised in the past to cease all drainage from their site (Bill Librizzi's memo of June 12, 1974, Dave Longstreet's letter of June 17, 1974, and Richard Bellis' telegram (copy) not dated).

Title 40, CFR 129, 38 FR 24342, dated September 7, 1973, lists mercury as one of the twelve toxic pollutants.

It is my belief that Rovic Construction should be prosecuted for a Refuse Act violation, and accordingly submit this memorandum to you for prosecution. Because of their premeditation and contemptuous disregard for past warnings, it is my feeling that maximum penalties should be sought.

Michael V. Polito
Emergency Response Branch

Attachments

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

34 m

REPLY TO ATTN OF: 2-SA-TEC

DATE: Sept. 27, 1974

SUBJECT: Mercury Results - Ventron Corp., 9/20/74

TO:

Chief
Emergency Response Branch

EPA Lab. Sample No.	Sample Source	Hg ug/l
42005	Collected from runoff ditch - Ventron.	15,800
42006	Collected upstream - runoff ditch - Ventron, 100 - 150'.	1.1
42007	Collected downstream - runoff ditch - Ventron.	940

Francis T. Brezenski

cc: M. Polito

EPA FORM 1320-6 (11-71)

RECORD OF COMMUNICATION

☐ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☐ CONFERENCE
☐ OTHER (SPECIFY)

33

(Record of item checked above)

TO:	FROM:	DATE
File	Michael V. Polito	September 19, 1974
		TIME

SUBJECT

Ventron Site Visit

SUMMARY OF COMMUNICATION

On 9/19/74 I visited the Ventron Company accompanied by Ed Faille of NJSDEP. Larry Lepre on site. He revealed that he had contaminated area sampled without consulting me by New Jersey Testing Lab. After discussing the fact that I had to be consulted, I finally convinced him by showing me a copy of new grid and then making me a transparent overlay of the grid.

No site sampling details were available. Samples taken from a runoff ditch for mercury. Will be given to lab for analysis.

Michael V. Polito

Additional tests made by Phillips Bros., subsidiary Division of Engelhard Minerals & Chemical Corp., 299 Park Ave., New York 10017. PL-2-2400. Mr. Victor Reynolds - Sample Taker.
Mr. Steven Rothchild - Manager.

New Jersey Test Lab - Newark. 248-6000 -
Mr. Wingeta - Manager - Mr. Elsaesser - worker.

CONCLUSIONS, ACTION TAKEN OR REQUIRED

INFORMATION COPIES
TO:

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II

EDISON N.J.

Location

Collector Sta. Depths (Ft.) Air Temp. (°F)

SAMPLING METHOD (Circle)

Kemmerer Petersen Surber Manual

Plankton Net Seine Trawl Bucket

Other

COMPOSITE DATA (Circle)

Flow Space Time

Observed Flow

Avg. Daily Flow

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %
Clear	North	0	Clean	Ooze
P. Cloudy	East	1	Oil	Sand
Overcast	South	2	Garbage	Gravel
Fog	West	3	Trash	Clay
Drizzle	0-5	4	Gas Bubbles	Rubble
Rain	MPH	5	Dead Fish	Rock
Snow	5-15	5+	Sewage	Shell
	MPH		Ind. Waste	Organic
	Over 15		Float. Solids	
	MPH			

TIDE CONDITION

LW Slack HW Slack LW Slack

Flood Ebb

Tide Stage (Height)

Low

Normal

High

WATER-Color From Plankton, Waste, Sediment, Other

Odor Fresh/Brackish/Salt

STREAM-Width (Ft.) Depth (Ft.) Low/Normal/Flood

Rapids % Pools % Riffles %

ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae

PLANTS-Floating % Emergent % Submerged %

Periphyton Algae

Remarks

Ventron Runoff ditch.

Mercury. (Analyze)

Samples to

Bact. Bio. Chem. Other

Station No.

Sample Depth (Ft.)

Lab Number

42005

Type of Sample

Grab ✓ Composite Sediment

Collection (Ending) Date

Yr 74 Mo 9 Day 17

Ending Time (24 Hr.)

Beginning Date

Yr Mo Day

Beginning Time (24 Hr.)

pH

Sample Temp. (°C)

D.O. (mg/l)

Cond. (UMHOS/CM)

Salinity (‰)

Other

Other

R2-1

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II

EDISON, N.J.

Location

Collector — Sta. Depth (Ft.) — Air Temp. (°F)

SAMPLING METHOD (Circle)

Kemmerer Petersen Surber Manual

Plankton Net Seine Trawl Bucket

Other

COMPOSITE DATA (Circle)

Flow Space Time

Observed Flow

Avg. Daily Flow

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %
Clear	North	0	Clean	Ooze
P. Cloudy	East	1	Oil	Sand
Overcast	South	2	Garbage	Gravel
Fog	West	3	Trash	Clay
Drizzle	0-5	4	Gas Bubbles	Rubble
Rain	MPH	5	Dead Fish	Rock
Snow	5-15	5+	Sewage	Shell
	MPH		Ind. Waste	Organic
	Over 15		Float. Solids	
	MPH			

TIDE CONDITION

LW Slack — HW Slack — LW Slack

Flood — Ebb

Tide Stage (Height)

Low / Normal / High

WATER Color _____ From Plankton, Waste, Sediment, Other

Odor _____ Fresh / Brackish / Salt

STREAM Width (Ft.) _____ Depth (Ft.) _____ Low / Normal / Flood

Rapids _____ % Pools _____ % Riffles _____ %

ANIMALS Fish: Adults, Fry Insects: Adult, Larvae

PLANTS Floating _____ % Emergent _____ % Submerged _____ %

Periphyton Algae

Remarks

Upstream - Ventron Runoff

Ditch - 100-150'

Analyze for Mercury

Samples for:

Bact.	Bio.	Chem.	Other

Station No.

Sample Depth (Ft.)

Lab. Number

42006

Type of Sample

Grab	Composite	Sediment

Collection (Ending) Date

Yr.	Mo.	Day
74	9	19

Ending Time (24 Hr.)

Beginning Date

Yr.	Mo.	Day
74	9	19

Beginning Time (24 Hr.)

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity (‰)

Other

Other

R2.1

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, N.J.

Location: Vernon

Collector: [illegible] Sta. Depth (Ft.) _____ Air Temp. (°F) _____

SAMPLING METHOD (Circle)
Kemmerer Petersen Surber Manual
Plankton Net Seine Trawl Bucket
Other _____

COMPOSITE DATA (Circle)
Flow Space Time
Observed Flow _____
Avg. Daily Flow _____

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %
Clear	North	0	Clean	Ooze
P. Cloudy	East	1	Oil	Sand
Overcast	South	2	Garbage	Gravel
Fog	West	3	Trash	Clay
Drizzle	0-5	4	Gas Bubbles	Rubble
Rain	MPH	5	Dead Fish	Rock
Snow	5-15	5+	Sewage	Shell
	MPH		Ind. Waste	Organic
	Over 15		Float. Solids	
	MPH			

TIDE CONDITION

LW Slack — HW Slack — LW Slack

Flood — Ebb

Tide Stage (Height)
Low
Normal
High

WATER-Color _____ From Plankton, Waste, Sediment, Other

Odor _____ Fresh/Brackish/Salt

STREAM-Width (Ft.) _____ Depth (Ft.) _____ Low/Normal/Flood

Rapids _____ % Pools _____ % Riffles _____ %

ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae

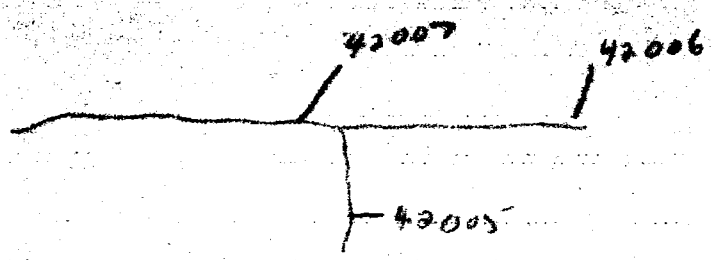
PLANTS-Floating _____ % Emergent _____ % Submerged _____ %

Periphyton Algae

Remarks

Vernon Run off Ditch.
Downstream

Analyze for Mercury



Samples to: Bact | Bio. | Chem ✓ | Other

Station No.

Sample Depth (Ft.)

Lab Number: 42007

Type of Sample: Grab | Composite | Sediment

Collection (Ending) Date: Yr 77 Mo 9 Day 19

Ending Time (24 Hr)

Beginning Date: Yr Mo Day

Beginning Time (24 Hr)

pH

Sample Temp. (°C)

DO (mg/l)

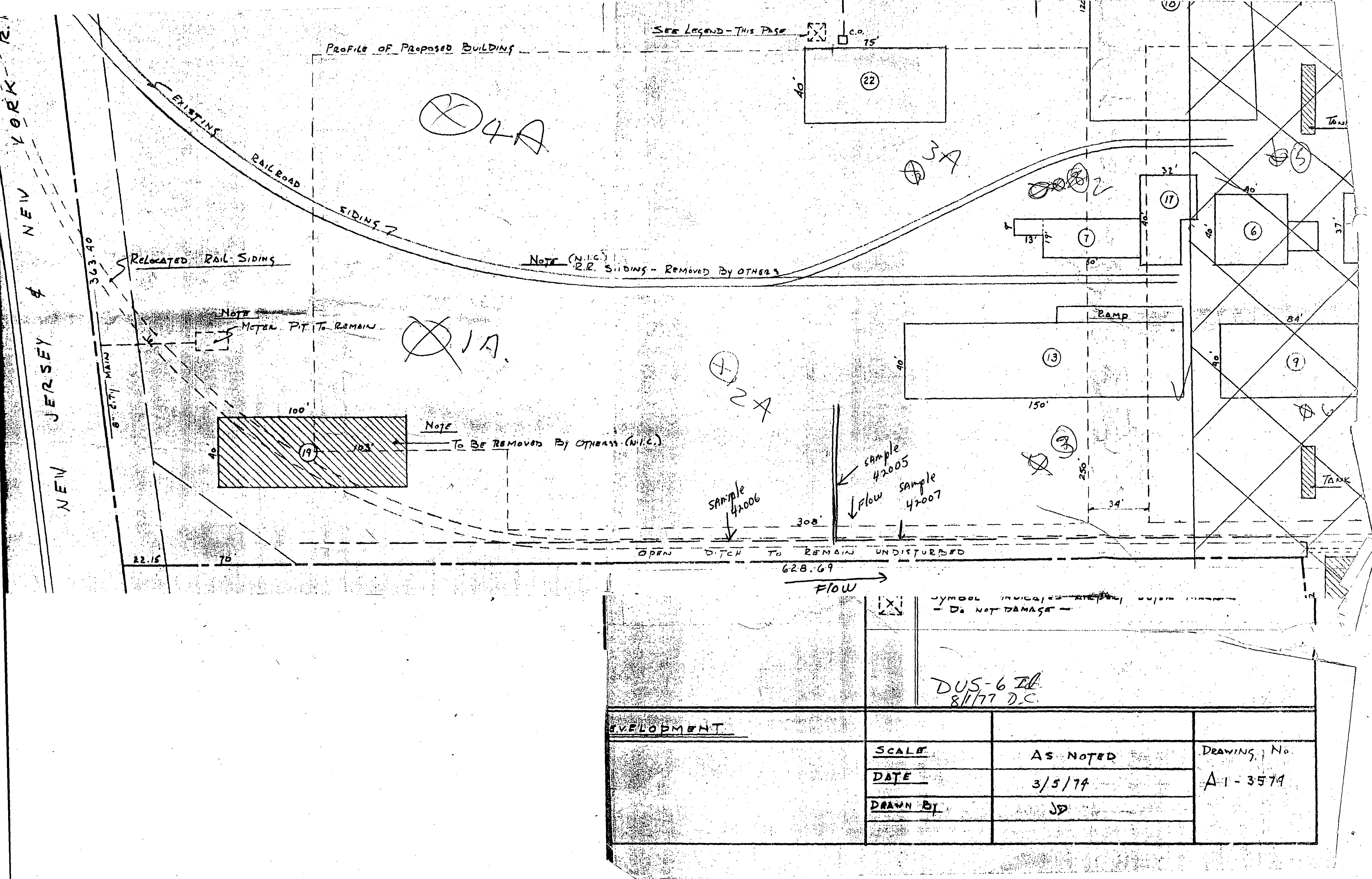
Cond. (uMHOS/CM)

Salinity (‰)

Other _____

Other _____

R2.1


NEW YORK R.R.
NEW JERSEY
NEW
SEE LEGEND - THIS PAGE
C.O.
75'
PROFILE OF PROPOSED BUILDING
22
40'
EXISTING RAILROAD SIDING
4A
3A
2
5
17
32'
40'
7
13'
19'
60'
6
40'
37'
TANK
363.40
RELOCATED RAIL SIDING
NOTE (N.I.C.) R.R. SIDING - REMOVED BY OTHERS
NOTE
MOTER PIT TO REMAIN
8" CITY MAIN
1A
2A
RAMP
13
40'
150'
84'
9
90'
6
100'
19
103'
40
NOTE
TO BE REMOVED BY OTHERS (N.I.C.)
sample 42005
sample 42006
sample 42007
Flow
308'
3
250'
34'
TANK
OPEN DITCH TO REMAIN UNDISTURBED
22.15
70
628.69
FLOW
- DO NOT DAMAGE -
DUS-6
8/1/77 D.C.
DEVELOPMENT
SCALE
AS NOTED
DATE
3/5/74
DRAWN BY
JD
DRAWING NO.
A1-3579

Mike

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

32

REPLY TO ATTN OF: 2-SA-TEC

DATE: Sept. 13, 1974

SUBJECT: Ventron Sediment Samples - Hg Results

TO:
Chief
Emergency Response Branch

EPA Lab. Sample No.	Station No.	Hg mg/kg	Sample Source
41020	SA 46808	1.2	Sediment collected from possible abandoned lagoon in back of Ventron site.

Francis T. Brezenski

Francis T. Brezenski
Chief
Technical Support Branch

cc: M. Polito

EPA FORM 1320-6 (11-71)

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, N.J.

Location: [illegible handwriting]

Collector: [illegible handwriting] Sta. Depth (Ft.) 5 Air Temp (°F)

Samples to: Bact | Bio | Chem | Other

SAMPLING METHOD (Circle)

Kemmerer Petersen Surber Manual

Plankton Net Seine Trawl Bucket

Other

COMPOSITE DATA (Circle)

Flow Space Time

Observed Flow

Avg. Daily Flow

Station No.

Sample Depth (Ft.)

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %	TIDE CONDITION
Clear	North	0	Clean	Ooze	
P. Cloudy	East	1	Oil	Sand	LW Slack HW Slack LW Slack
Overcast	South	2	Garbage	Gravel	
Fog	West	3	Trash	Clay	
Drizzle	0-5	4	Gas Bubbles	Rubble	Flood Ebb
Rain	MPH	5	Dead Fish	Rock	
Snow	5-15	5+	Sewage	Shell	Tide Stage (Height)
	MPH		Ind. Waste	Organic	Low
	Over 15		Float. Solids		Normal
	MPH				High

Lab Number: 41020

Type of Sample: Grab | Composite | Sediment ✓

Collection (Ending) Date: Yr 74 Mo [illegible] Day [illegible]

Ending Time (24 Hr)

WATER- Color ______ From: Plankton, Waste, Sediment, Other

Odor ______ Fresh/Brackish/Salt

STREAM- Width (Ft.) ______ Depth (Ft.) ______ Low/Normal/Flood

Rapids ____ % Pools ____ % Riffles ____ %

ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae

PLANTS- Floating ____ % Emergent ____ % Submerged ____ %

Periphyton Algae

Beginning Date: Yr Mo Day

Beginning Time (24 Hr)

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity (‰)

Other

Other

Remarks

[illegible handwriting]

[illegible handwriting]

Analyze for Mercury

M. V. [illegible]

8/9/74

[illegible] Lab No. 46608

[illegible]

R2-1

FILIATED WITH

ROVIC CONSTRUCTION CO., INC.

911 BERGEN AVENUE • JERSEY CITY, NEW JERSEY 07306 • (201) 653-6300 • N.Y. (212) 962-6840

31

August 30, 1974

Mr. David Longstreet
Oil & Hazardous Materials Program
State of New Jersey
Department of Environmental Protection
John Fitch Plaza
P. O. Box 2807
Trenton, New Jersey 08625

Re: Lot 10, Block 229
Proposed Warehouse &
Office Building
Park Place East
Wood-Ridge, New Jersey

Dear Mr. Longstreet:

The following is in accordance with our meeting held at the offices of the Environmental Protection Agency in Edison, New Jersey on August 16, 1974, and the Memorandum of Understanding. With reference to Item #5 of the Memorandum regarding the soils samples and testing at the locations as indicated on Drawing A1-3574 as prepared by Rovic Construction Co., Inc., enclosed herewith please find copy of the report as furnished to this office by the U. S. Testing Company, Inc. dated August 29, 1974. Based upon the results of these tests, we are proceeding with the construction of Building #1.

If you have any questions, please do not hesitate to contact me.

Very truly yours,

John Andrews
Vice President

JA:ic
encl.
cc: Mr. Henry Gluckstern
Mr. William Librizzi
Mr. Michael V. Polito
Mr. Robert M. Wolf
Mr. Joseph D'Amore
Mr. C. Lawrence Lepre

AFFILIATED WITH

ROVIC CONSTRUCTION CO., INC.

911 BERGEN AVENUE • JERSEY CITY, NEW JERSEY 07306 • (201) 653-6300 • N.Y. (212) 962-6840

30

August 23, 1974

Mr. Frank Coolick
Chemical Engineer
Bureau of Solid Waste Management
State of New Jersey
Department of Environmental Protection
John Fitch Plaza
P. O. Box 2807
Trenton, N. J. 08625

Re: Lot 10, Block 229
Park Place East
Wood-Ridge, New Jersey

Dear Mr. Coolick:

This is to confirm our telephone conversation of this date in which your authorization was given for the removal of the stock piled demolition material and concrete slabs from the above referenced jobsite to the sanitation landfill disposal site in Bergen County.

We wish to thank you for your cooperation in expediting this matter for us.

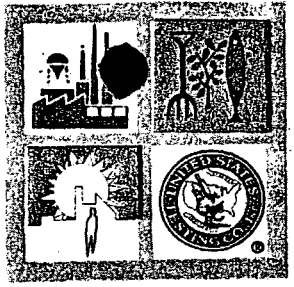
Sincerely,

John Andrews
Vice President

JA:ic

cc: Henry Gluckstern, Division of Enforcement and Regional Counsel, EPA
David Longstreet, Oil & Hazardous Materials Program, NJDEP
William Librizzi, Chief, Emergency Response Branch, EPA
Michael V. Polito, Chemist ✓ Emergency Response Branch, EPA
Carmen Ottilio, Demolition Contractor
Robert M. Wolf, President
C. Larry Lepre, Superintendent
Joseph D'Amore, Project Manager
Martin M. Katz, Treasurer

United States Testing Company, Inc.
Environmental Sciences Division
1415 PARK AVENUE
HOBOKEN, NEW JERSEY 07030 (201) 792-2400 (212) 943-0488



August 29, 1974

Mr. John Andrews
Rovic Construction
911 Bergen Avenue
Jersey City, New Jersey 07306

Dear Mr. Andrews:

Per your request, on August 21, 1974 we collected four samples of soil at your construction site. The locations of the samples were marked and labelled by Mr. Lepre. The soil samples were collected at one foot below the present surface. The samples were analyzed for mercury content.

Below are the results obtained:

Location of Sample	Mercury Content In Percent
Site 1A	Less than 0.001%
Site 2A	Less than 0.001%
Site 3A	0.005%
Site 4A	Less than 0.001%

Please do not hesitate to contact us if further information or clarification is needed.

Yours truly,

UNITED STATES TESTING COMPANY, INC.

E. Rider

E. Rider
Vice President

ROVIC CONSTRUCTION CO., INC.
RECEIVED
AUG 30 1974

ER/js

8/6/74

29

MEMORANDUM OF UNDERSTANDING

Between United States Environmental Protection Agency (EPA), Region II, the New Jersey Department of Environmental Protection (NJDEP), and Rovic Construction Company, Inc. (Rovic) of 911 Bergen Avenue, Jersey City, New Jersey, Robert M. Wolf, Registered Agent.

The following points were agreed to by the undersigned at a meeting held on August 16, 1974, at the EPA Office in Edison, New Jersey:

(1) Rovic shall remove six inches of soil from the easterly line of Building No. 2 then running westerly and southernly to the western boundary of the property. This soil will be stock piled and segregated from construction rubble at a point in the northeast corner of the cross-hatched area indicated on Rovic Plan A1-3574.

(2) Samples will be taken to a depth of one foot at points 1A through 4A as indicated on Rovic Plan A1-3574. complete letter dated 8/30

(3) Rovic will notify Mr. David Longstreet of the New Jersey Department of Environmental Protection, or his representative, of the results of sample tests, which will be for mercury only. Complete letter dated 8/30

(4) New Jersey Department of Environmental Protection will coordinate with the Bureau of Solid Waste Management, NJDEP, and designate a proper site for disposal of stock pile material if contaminated. If the material is not contaminated, it need not be removed from the site, at Rovic's option.

(5) In consideration of the above, provided that test borings do not indicate a mercury content exceeding that found in borings taken at Sites 1, 2, and 3, Rovic may proceed with construction provided that such construction is limited to areas west of the easternly line of Building No. 2, as indicated in Rovic Plan A1-3574. completed letter 8/30/74

(6) No construction or field work shall be done east of Building No. 2 until additional tests are performed. The results of these tests will be given to EPA and NJDEP. Given at meeting 12/5/74

(7) Prior to removal of contaminated excavated material, Rovic will provide for approval by EPA and NJDEP a plan for removal and disposal. EPA and NJDEP upon receipt of the plan will respond to Rovic within five working days.

8/6/74

(8) Rovic reserves the right to formulate a plan of taking additional test borings to further define the pattern of contamination of the site. The plan must be approvable by Mr. Michael Polito of EPA, or his designee. Results of additional testing will be evaluated by Rovic, EPA, and NJDEP to determine whether any change in excavation or method of disposal of excavated material is warranted. Any additional findings shall be submitted no later than September 30, 1974. EPA and NJDEP will advise Rovic of their requirements within ten days of receipt of Rovic's statement.

Only given 12/6/74 Not advised

(9) Subject to the above, Rovic agrees to remove contaminated soil to a depth of three feet beginning 65 feet east of Building No. 2 and extending to the easternly propertly line across the width of the property as indicated in the cross-hatched area on Rovic Plan A1-3574.

Signed this Sixth Day of August 1974.

Signatures of:

John Andrews, Vice President
Rovic Construction Company, Inc.

Henry Gluckstern, Division of
Enforcement and Regional Counsel, EPA

David Longstreet, Oil & Hazardous
Materials Program, NJDEP

William Librizzi, Chief, Emergency
Response Branch, EPA

Michael V. Polito, Chemist
Emergency Response Branch, EPA

MEMORANDUM OF UNDERSTANDING

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Signed this Sixth Day of August 1974.

Signatures of:

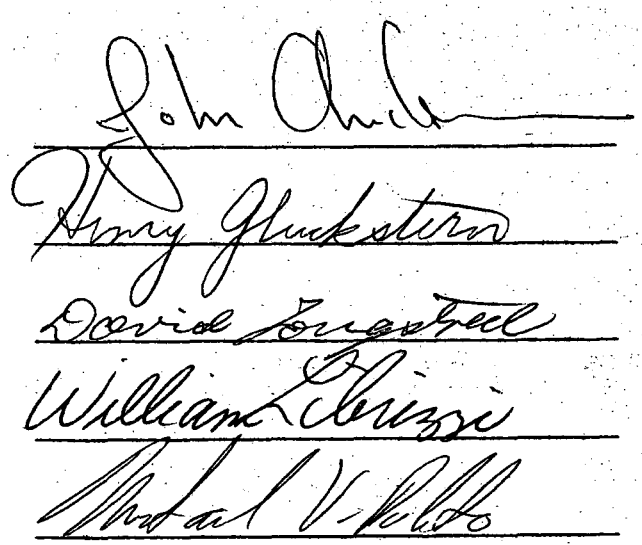
John Andrews, Vice President
Rovic Construction Company, Inc.

Henry Gluckstern, Division of
Enforcement and Regional Counsel, EPA

David Longstreet, Oil & Hazardous
Materials Program, NJDEP

William Librizzi, Chief, Emergency
Response Branch, EPA

Michael V. Polito, Chemist
Emergency Response Branch, EPA



Aug 16, 1974
E PA Edison

David C. Longstreet - NJ DEP
Henry Gluckstern - EPA, Enforcement + Regional Counsel
Robert Holl - The Holl Organization
John Schuller - " "
William Librizzi - EPA Region II Emergency Response
Edward J. Falle - N.J. D.E.P.
M. U. Polito

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

28

REPLY TO ATTN OF: 2-SA-ER

DATE: August 9, 1974

SUBJECT: Ventron Site

TO:

William Librizzi
Chief, Emergency Response Branch

THRU: Paul R. Elliot
Acting Chief, Oil & Hazardous
Materials Section

I have reviewed the Ventron case and find strengthening is needed in the following areas:

(1) The extent of surface runoff must be evaluated.

(2) During periods of rain, a series of sampling points must be taken to show toxic materials leaving the property.

(3) The entrance of toxic materials into Berrys Creek must be shown.

(4) The migration of sediment elemental mercury in the groundwater must be evaluated.

(5) A legal citation be issued to the Rovic Company to prevent any and all runoff of rain or other wastes from leaving the Ventron site, whether or not irreparable harm is occurring to Berrys Creek.

I further request that I be assigned a field technician to carry out the aspects of the program I have outlined.

Michael V. Polito
Emergency Response Branch

EPA FORM 1320-6 (11-71)

Rec'd 8/13/74

United States Testing Company, Inc.
Environmental Sciences Division
1415 PARK AVENUE
HOBOKEN, NEW JERSEY 07030 (201) 792-2400 (212) 943-0488

August 8, 1974

Mr. Michael V. Polito
U. S. Environmental Protection Agency
Region II
Edison, New Jersey 08817

27

Dear Mr. Polito:

I am reissuing to you the data given to Mr. Santoro of Gaess Environmental Services in reference to the work performed at the Ventron site.

Date	Test Site	mg/liter Mercury	Cadmium	Zinc	Oil
6/13/74	Concrete Mercury Pond	35			
6/13/74	Weir	167	<0.02	13	6.15%
6/17/74	Berry Creek Above Bulkhead Outfall	0.5	<0.02	0.51	26
6/17/74	Weir	2.2	<0.02	0.25	17
6/17/74	Weir	(3.9)2.7	<0.02	0.50	32
6/18/74	Berry Creek Below Bulkhead	0.5	<0.02	0.61	17
6/21/74	Water Being Pumped Into Holding Tank	80	<0.02	0.21	172
6/24/74	Weir	50	<0.02	0.19	21

Holding Tank			
Alkalinity	220 mg/liter	Cadmium	<0.02
TOC %	0.12	Mercury	4.6
Oil	452 mg/liter	Zinc	0.50
pH	>.3		

Yours truly,

UNITED STATES TESTING COMPANY, INC.

M. Tanzer

Martin S. Tanzer
Supervisor - Aquatic Services

MST/js

UNITED STATES GOVERNMENT

2-Way Memo

26

Subject: Ventron

DATE OF MESSAGE: Aug. 8, 1974

DATE OF REPLY:

INSTRUCTIONS

Use routing symbols whenever possible.

SENDER:
Forward original and one copy.
Conserve space.

RECEIVER:
Reply below the message, keep one copy, return one copy.

To: Henry Bluhstein
Enforcement Regional Counsel

FOLD FOLD

USE BRIEF, INFORMAL LANGUAGE

Attached is the analyses of a Coring sample taken by U.S. Testing and analyzed by Region II laboratory. This sample was taken from a location designated as site 8.

Site 8 was located 6 paces due west from the east fence and 57 paces due north from the south fence surrounding the Ventron site.

As you can see sample 37692A, surface is reported by the lab to be greater than 20% mercury, the 1 foot sample greater than 15% mercury, the 2 foot sample greater than 6% mercury and the three foot sample 4.7% mercury.

Attachment

From: Mike Polito
OHM Section
EMR Board

5027-102

3. TO BE RETAINED BY ORIGINATOR

OPTIONAL FORM 27
OCTOBER 1962
GSA FPMR (41 CFR) 101-11.6

Mike
Rcd
8/8/74

25

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

REPLY TO ATTN OF: 2-SA-TEC

DATE: Aug. 8, 1974

SUBJECT: Laboratory Analyses - Ventron Corp., Woodbridge, N.J.
Site 8, July 11, 1974

TO: Chief
Emergency Response Branch

EPA Lab. Sample No.	Soil Depth ft.	mg/kg Dry Weight						
		Mercury	Cadmium	Lead	Zinc	Chromium	Nickel	Arsenic
33692 A	0.0	> 200,000	23	750	50,000	490	640	8.6
33692 B	1.0	> 150,000	13	1,550	53,000	5,500	180	5.2
33692 C	2.0	> 6,000	13	1,450	9,800	15,800	180	1.9
33692 D	3.0	47,000	< 3	400	3,100	54	37	1.4

Mercury droplets were observed in the surface, 1' and 2' samples. These samples were analyzed by a flotation procedure using a distilled water flush of the soil samples which left the free mercury in the bottom of the container. The mercury was then washed with acetone and the acetone evaporated. The mercury was weighed and mercury content was calculated. The 3' sample (D) was analyzed by the atomic absorption procedure. The other metal values were obtained by atomic absorption.

F T. Brezenski/lk

Francis T. Brezenski
Chief
Technical Support Branch

EPA FORM 1320-6 (11-71)

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II

EDISON, N.J.

Location: Ventron

Collector: U.S. Testing Sta. Depth (Ft.): _____ Air Temp. (°F) _____

SAMPLING METHOD (Circle)

Kemmerer Petersen Surber Manual

Plankton Net Seine Trawl Bucket

Other _____

COMPOSITE DATA (Circle)

Flow Space Time

Observed Flow _____

Avg. Daily Flow _____

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %
Clear	North	0	Clean	Ooze
P. Cloudy	East	1	Oil	Sand
Overcast	South	2	Garbage	Gravel
Fog	West	3	Trash	Clay
Drizzle	0-5 MPH	4	Gas Bubbles	Rubble
Rain	5 MPH	5	Dead Fish	Rock
Snow	5-15 MPH	5+	Sewage	Shell
	Over 15 MPH		Ind. Waste	Organic
			Float. Solids	

TIDE CONDITION

LW Slack HW Slack LW Slack

Flood Ebb

Tide Stage (Height)

Low

Normal

High

WATER-Color _____ From Plankton, Waste, Sediment, Other

Odor _____ Fresh/Brackish/Salt

STREAM-Width (Ft.) _____ Depth (Ft.) _____ Low/Normal/Flood

Rapids _____ % Pools _____ % Riffles _____ %

ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae

PLANTS-Floating _____ % Emergent _____ % Submerged _____ %

Periphyton Algae

Remarks

Form Subs Surface

1 ft

2 ft

3 ft.

D-VEL 4A d

6-9-77

SW

Submitted by M. Roberts 9/4/77

Hold until further notice

Samples to: Bact. Biol. Chem. ✓ Other

Station No.

Sample Depth (Ft.)

Lab Number: 46001

Type of Sample: Grab Composite Sediment ✓

Collection (Ending) Date: Yr 77 Mo 12 Day 14

Ending Time (24 Hr)

Beginning Date: Yr Mo Day

Beginning Time (24 Hr)

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity (‰)

Other

Other

R2.1

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, N.J.

Location: Plankton

Collector: V. S. Torres Sta. Depth (Ft.) ______ Air Temp. (°F) ______

Samples to: Bact | Bio | Chem ✓ | Other

Station No. 2

Sample Depth (Ft.)

Lab Number 46002

SAMPLING METHOD (Circle)
Kemmerer Petersen Surber Manual
Plankton Net Seine Trawl Bucket
Other ______

COMPOSITE DATA (Circle)
Flow Space Time
Observed Flow ______
Avg. Daily Flow ______

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %
Clear	North	0	Clean	Ooze
P. Cloudy	East	1	Oil	Sand
Overcast	South	2	Garbage	Gravel
Fog	West	3	Trash	Clay
Drizzle	0-5	4	Gas Bubbles	Rubble
Rain	MPH	5	Dead Fish	Rock
Snow	5-15	5+	Sewage	Shell
	MPH		Ind. Waste	Organic
	Over 15		Float. Solids	
	MPH			

TIDE CONDITION
LW Slack — HW Slack — LW Slack
Flood — Ebb
Tide Stage (Height): Low / Normal / High

Type of Sample: Grab | Composite | Sediment

Collection (Ending) Date: Yr 7 | Mo 7 | Day 14

Ending Time (24 Hr)

Beginning Date: Yr | Mo | Day

Beginning Time (24 Hr)

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity (‰)

Other

Other

WATER- Color ______ From Plankton, Waste, Sediment, Other
Odor ______ Fresh/Brackish/Salt

STREAM- Width (Ft.) ______ Depth (Ft.) ______ Low/Normal/Flood
Rapids ______ % Pools ______ % Riffles ______ %

ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae

PLANTS- Floating ______ % Emergent ______ % Submerged ______ %
Periphyton Algae

Remarks

Four Subs

Surface
1 ft
2 ft
3 ft.

D-VEL 4B 2
6-9-77
[illegible]

Submitted by Polito 8/14/74

Hold until further notice

R2.1

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF WATER PROGRAMS REGION II

EDISON, N.J.

Location: Ventnor
Collector: U.S. Tarley Sta. Depth (Ft.) _____ Air Temp. (°F) _____

SAMPLING METHOD (Circle)
Kammerer Petersen Surber Manual
Plankton Net Seine Trawl Bucket
Other _____

COMPOSITE DATA (Circle)
Flow Space Time
Observed Flow _____
Avg. Daily Flow _____

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %
Clear	North	0	Clean	Ooze
P. Cloudy	East	1	Oil	Sand
Overcast	South	2	Garbage	Gravel
Fog	West	3	Trash	Clay
Drizzle	0-5	4	Gas Bubbles	Rubble
Rain	MPH	5	Dead Fish	Rock
Snow	5-15	5+	Sewage	Shell
	MPH		Ind. Waste	Organic
	Over 15		Float. Solids	
	MPH			

TIDE CONDITION

LW Slack – HW Slack – LW Slack
Flood Ebb

Tide Stage (Height)
Low
Normal
High

WATER-Color _____ From Plankton, Waste, Sediment, Other
Odor _____ Fresh/Brackish/Salt

STREAM-Width (Ft.) _____ Depth (Ft.) _____ Low/Normal/Flood
Rapids _____ % Pools _____ % Riffles _____ %

ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae

PLANTS-Floating _____ % Emergent _____ % Submerged _____ %
Periphyton Algae

Remarks

From Subs Surface
1 ft
2 ft
3 ft

Submitted by Public

D-VEL4C-a
6-9-77
SV

9/4/74

Hold until further notice

Samples to:

Bact	Bio	Chem ✓	Other

Station No: 3

Sample Depth (Ft.): _____

Lab Number: 46003

Type of Sample

Grab	Composite	Sediment ✓

Collection (Ending) Date

Yr	Mo	Day
77	7	14

Ending Time (24 Hr): _____

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr): _____

pH: _____

Sample Temp. (°C): _____

DO (mg/l): _____

Cond. (uMHOS/CM): _____

Salinity (‰): _____

Other: _____

Other: _____

R2.1

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON N.J.

Location: Vantin
Collector: [illegible] Sta. Depth (Ft.) ______ Air Temp. (°F) ______

SAMPLING METHOD (Circle)
Kemmerer Petersen Surber Manual
Plankton Net Seine Trawl Bucket
Other ______

COMPOSITE DATA (Circle)
Flow Space Time
Observed Flow ______
Avg. Daily Flow ______

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %	TIDE CONDITION
Clear	North	0	Clean	Ooze	
P. Cloudy	East	1	Oil	Sand	LW Slack / HW Slack / LW Slack
Overcast	South	2	Garbage	Gravel	
Fog	West	3	Trash	Clay	
Drizzle	0-5	4	Gas Bubbles	Rubble	Flood / Ebb
Rain	MPH	5	Dead Fish	Rock	
Snow	5-15	5+	Sewage	Shell	Tide Stage (Height)
	MPH		Ind. Waste	Organic	Low
	Over 15		Float. Solids		Normal
	MPH				High

WATER-Color ______ From Plankton, Waste, Sediment, Other
Odor ______ Fresh/Brackish/Salt

STREAM-Width (Ft.) ______ Depth (Ft.) ______ Low/Normal/Flood
Rapids ______ % Pools ______ % Riffles ______ %

ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae

PLANTS-Floating ______ % Emergent ______ % Submerged ______ %
Periphyton Algae

Remarks

Four Subs Surface
1 ft
2 ft
3 ft

D-VEL4-D [illegible]
6-9-77
[illegible]

Submitted by Polito.

5/4/84

Hold until further notice

Samples to:

Bact	Bio	Chem	Other
		✓	

Station No ______

Sample Depth (Ft.) ______

Lab Number: 46004

Type of Sample

Grab	Composite	Sediment
		✓

Collection (Ending) Date

Yr	Mo	Day
7	17	14

Ending Time (24 Hr) ______

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr) ______

pH ______

Sample Temp. (°C) ______

DO (mg/l) ______

Cond. (uMHOS/CM) ______

Salinity (‰) ______

Other ______

Other ______

R2.1

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, N.J.

Location: Vaughan Corp, Woodbridge

Collector: US Eng. Corp. Sta. Depth (Ft.) ______ Air Temp. (°F) ______

Samples to: Bact | Bio | Chem | Other

Station No.: Site 4

SAMPLING METHOD (Circle)
Kemmerer Petersen Surber Manual
Plankton Net Seine Trawl Bucket
Other ______

COMPOSITE DATA (Circle)
Flow Space Time
Observed Flow ______
Avg. Daily Flow ______

Sample Depth (Ft.)

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %	TIDE CONDITION
Clear	North	0	Clean	Ooze	
P. Cloudy	East	1	Oil	Sand	LW Slack / HW Slack / LW Slack
Overcast	South	2	Garbage	Gravel	
Fog	West	3	Trash	Clay	
Drizzle	0-5	4	Gas Bubbles	Rubble	Flood / Ebb
Rain	MPH	5	Dead Fish	Rock	
Snow	5-15	5+	Sewage	Shell	Tide Stage (Height)
	MPH		Ind. Waste	Organic	Low
	Over 15		Float. Solids		Normal
	MPH				High

Lab Number: 33689

Type of Sample: Grab | Composite | Sediment

Collection (Ending) Date: Yr 74 Mo 07 Day 11

WATER-Color ______ From Plankton, Waste, Sediment, Other

Odor ______ Fresh/Brackish/Salt

STREAM-Width (Ft.) ______ Depth (Ft.) ______ Low/Normal/Flood

Rapids ______ % Pools ______ % Riffles ______ %

ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae

PLANTS-Floating ______ % Emergent ______ % Submerged ______ %

Periphyton Algae

Ending Time (24 Hr)

Beginning Date: Yr Mo Day

Beginning Time (24 Hr)

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity (‰)

Other

Other

Remarks

Surface — 33689
1' — 33689 (A)
2' — 33689 (B)
3' — 33699 (C)

Hold for heavy metal analysis
PCB + Pesticides

D-VELHEid
6-9-77

R2.1

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON N.J.

Location: Kentron Corp, Woodbridge

Collector: H. Sterling Co. — Sta. Depth (Ft.) ______ Air Temp. (°F) ______

SAMPLING METHOD (Circle)

Kemmerer Petersen Surber Manual

Plankton Net Seine Trawl Bucket

Other ______

COMPOSITE DATA (Circle)

Flow Space Time

Observed Flow ______

Avg. Daily Flow ______

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %	TIDE CONDITION
Clear	North	0	Clean	Ooze	
P. Cloudy	East	1	Oil	Sand	LW Slack — HW Slack — LW Slack
Overcast	South	2	Garbage	Gravel	
Fog	West	3	Trash	Clay	
Drizzle	0-5	4	Gas Bubbles	Rubble	Flood — Ebb
Rain	MPH	5	Dead Fish	Rock	
Snow	5-15	5+	Sewage	Shell	Tide Stage (Height)
	MPH		Ind. Waste	Organic	Low
	Over 15		Float. Solids		Normal
	MPH				High

WATER-Color ______ From Plankton, Waste, Sediment, Other

Odor ______ Fresh/Brackish/Salt

STREAM-Width (Ft.) ______ Depth (Ft.) ______ Low/Normal/Flood

Rapids ______ % Pools ______ % Riffles ______ %

ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae

PLANTS-Floating ______ % Emergent ______ % Submerged ______ %

Periphyton Algae

Remarks

SURFACE - 33690

1' - 33690 (A)

2' - 33690 (B)

3' - 33690 (C)

Hold for heavy metal analysis

PCB + Pesticides

D-VEL 4-F cd

6-9-77

Samples to:

Bact	Bio	Chem	Other
		✓	

Station No.: SITE 5

Sample Depth (Ft.) ______

Lab Number: 33690

Type of Sample

Grab	Composite	Sediment

Collection (Ending) Date

Yr	Mo	Day
74	07	11

Ending Time (24 Hr) ______

Beginning Date

Yr	Mo	Day

Beginning Time (24 Hr) ______

pH ______

Sample Temp. (°C) ______

DO (mg/l) ______

Cond. (uMHOS/CM) ______

Salinity (‰) ______

Other ______

Other ______

R2.1

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF WATER PROGRAMS REGION II
EDISON, N.J.

Location: Ventron Corp, Woodbridge
Collector: U.S. Testing Co. Sta. Depth (Ft.) ______ Air Temp. (°F) ______

Samples to: Bact. | Bio. | Chem. | Other

Station No. Site 7

Sample Depth (Ft.)

SAMPLING METHOD (Circle)
Kemmerer Petersen Surber Manual
Plankton Net Seine Trawl Bucket
Other ______

COMPOSITE DATA (Circle)
Flow Space Time
Observed Flow ______
Avg. Daily Flow ______

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %	TIDE CONDITION
Clear	North	0	Clean	Ooze	
P. Cloudy	East	1	Oil	Sand	LW Slack HW Slack LW Slack
Overcast	South	2	Garbage	Gravel	
Fog	West	3	Trash	Clay	
Drizzle	0-5	4	Gas Bubbles	Rubble	Flood Ebb
Rain	MPH	5	Dead Fish	Rock	
Snow	5-15	5+	Sewage	Shell	Tide Stage (Height)
	MPH		Ind. Waste	Organic	Low
	Over 15		Float. Solids		Normal
	MPH				High

Lab Number: 33691

Type of Sample: Grab | Composite | Sediment

Collection (Ending) Date: Yr 74 Mo 07 Day 11

Ending Time (24 Hr)

WATER-Color ______ From Plankton, Waste, Sediment, Other
Odor ______ Fresh/Brackish/Salt

STREAM-Width (Ft.) ______ Depth (Ft.) ______ Low/Normal/Flood
Rapids ______ % Pools ______ % Riffles ______ %

ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae

PLANTS-Floating ______ % Emergent ______ % Submerged ______ %
Periphyton Algae

Beginning Date: Yr Mo Day

Beginning Time (24 Hr)

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity (‰)

Other ______

Other ______

Remarks

Surface - 33691
1' - 33691 (A)
2' - 33691 (B)
3' - 33691 (C)

Hold for heavy metal analysis
PCB + Pesticides

D-VEL 4-G id
6-9-77

R2.1

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF WATER PROGRAMS REGION II

EDISON, N.J.

Location: Raritan Cop, Woodbridge
Collector: U.S. Testing Co. Sta. Depth (Ft.) _____ Air Temp. (°F) _____

SAMPLING METHOD (Circle)
Kemmerer Petersen Surber Manual
Plankton: Net Seine Trawl Bucket
Other _____

COMPOSITE DATA (Circle)
Flow Space Time
Observed Flow _____
Avg. Daily Flow _____

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %
Clear	North	0	Clean	Ooze
P. Cloudy	East	1	Oil	Sand
Overcast	South	2	Garbage	Gravel
Fog	West	3	Trash	Clay
Drizzle	0-5 MPH	4	Gas Bubbles	Rubble
Rain	5-15 MPH	5	Dead Fish	Rock
Snow	Over 15 MPH	5+	Sewage	Shell
			Ind. Waste	Organic
			Float. Solids	

TIDE CONDITION
LW Slack HW Slack LW Slack
Flood Ebb
Tide Stage (Height)
Low
Normal
High

WATER- Color _____ From Plankton, Waste, Sediment, Other
Odor _____ Fresh/Brackish/Salt
STREAM- Width (Ft.) _____ Depth (Ft.) _____ Low/Normal/Flood
Rapids _____ % Pools _____ % Riffles _____ %
ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae
PLANTS- Floating _____ % Emergent _____ % Submerged _____ %
Periphyton Algae

Remarks

Surface - 33692
1' - 33692 (A)
2' - 33692 (B)
3' - 33692 (C)

Hold for heavy metal analysis
PCB & Pesticides

D-VEL 4-H id
69-77

Samples to: Bact. Bio Chem ✓ Other

Station No. SITE 4

Sample Depth (Ft.)

Lab Number 33692

Type of Sample: Grab Composite Sediment

Collection (Ending) Date: Yr 74 Mo 07 Day 11

Ending Time (24 Hr)

Beginning Date: Yr Mo Day

Beginning Time (24 Hr)

pH

Sample Temp. (°C)

DO (mg/l)

Cond. (uMHOS/CM)

Salinity (‰)

Other

Other

R2.1

FIELD DATA SHEET

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, N.J.

Location: Ken from Corp. Woodbridge

Collector: U.S. Testing Co. Sta. Depth (Ft.) _____ Air Temp. (°F) _____

SAMPLING METHOD (Circle)

Kemmerer Petersen Surber Manual

Plankton Net Seine Trawl Bucket

Other _____

COMPOSITE DATA (Circle)

Flow Space Time

Observed Flow _____

Avg. Daily Flow _____

OBSERVATIONS (Circle)

Weather	Wind	Ft. Wave	Surface	Bottom %
Clear	North	0	Clean	Ooze
P. Cloudy	East	1	Oil	Sand
Overcast	South	2	Garbage	Gravel
Fog	West	3	Trash	Clay
Drizzle	0-5	4	Gas Bubbles	Rubble
Rain	MPH	5	Dead Fish	Rock
Snow	5-15	5+	Sewage	Shell
	MPH		Ind. Waste	Organic
	Over 15		Float. Solids	
	MPH			

TIDE CONDITION

LW Slack — HW Slack — LW Slack

Flood — Ebb

Tide Stage (Height)

Low

Normal

High

WATER-Color _____ From Plankton, Waste, Sediment, Other

Odor _____ Fresh/Brackish/Salt

STREAM-Width (Ft.) _____ Depth (Ft.) _____ Low/Normal/Flood

Rapids _____ % Pools _____ % Riffles _____ %

ANIMALS- Fish: Adults, Fry Insects: Adult, Larvae

PLANTS-Floating _____ % Emergent _____ % Submerged _____ %

Periphyton Algae

Remarks

Surface - 33693

1' - 33693 (A)

2' - 33693 (B)

3' - 33693 (C)

Hold for heavy metal analysis

PCB & Pesticides

D-VEL 4 I ford

6-9-77 ✓

Samples to: Bact | Bio | Chem | Other

Station No. Site 7

Sample Depth (Ft.)

Lab Number: 33693

Type of Sample: Grab | Composite | Sediment

Collection (Ending) Date: Yr 74 Mo 07 Day 11

Ending Time (24 Hr)

Beginning Date: Yr Mo Day

Beginning Time (24 Hr)

pH

Sample Temp. (°C)

D.O (mg/l)

Cond. (uMHOS/CM)

Salinity (‰)

Other _____

Other _____

R2-1

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

24

REPLY TO ATTN OF: 2-SA-ER

DATE: August 8, 1974

SUBJECT: Ventron Demolition Site

TO: File

On this date, I visited the Ventron demolition site. At the site, I met with Mr. Faille and Mr. Longstreet of the New Jersey State Department of Environmental Protection.

I visited the site to observe any movement of materials and general site condition. Upon entering the property, I went to the office and notified them that I was on the property. Mr. Lepre walked outside with me, and I commented I hoped he was not moving piles of construction dirt and rubble piled up together. He said he was as per verbal agreements. I advised that the material referred to in verbal agreement was construction debris. The company is leveling the area and removing layers of soil, much of it possibly being contaminated. Surface area identification is being destroyed.

Mr. Longstreet and then Mr. Faille arrived and we proceeded to the land behind the Ventron site. This site has been used as a dump for barrels, construction debris and other miscellaneous materials (not Ventron debris from demolition). Two samples were taken: a sediment by me and some rocks by Mr. Faille.

I called Charles Hoffman (lawyer) and asked him if we could get an injunction to stop the company from removing this surface soil and loss of identity of sample site. He looked into the matter and called me back. Injunction only if:

(a) irreparable damage being done to Berrys Creek;

(b) runoff being increased from scraping.

I said I could not testify to any of these things. During the day, I again asked Mr. Longstreet for copy of minutes from meeting of July 1, 1974. Still no record of written agreement.

M. V. Polito

Michael V. Polito
Physical Scientist
Emergency Response Branch

cc: W. Librizzi

EPA FORM 1320-6 (11-71)

Received 8/15/74 M.V. Polito / additional tests - 8/15/74

23

	~~Cadmium~~ Arsenic (ppm)	~~Zinc~~ Sulfides (ppm)	Copper (ppm)	Chromium (ppm)	Nickel (ppm)	Lead (ppm)	Mercury (%)
Site 1							
Surface	6.8	~~590.0~~ 4	72	5.1	26	.24	.0415
1 Foot	4.6	~~235.1~~ 4	75	4.1	22	.1980	.0215
2 Feet	3.0	~~147.5~~ 3	51	4.6	16	16	.2175
3 Feet	~~<3.5~~ 7.8	~~88.2~~ 4	27	3.9	13	4.8	.0185
						Avg	.299/4 = .075
Site 2							
Surface	~~3.8~~ 8	~~2442.0~~ 4	206	5.4	35	130	.0185
1 Foot	11.9	~~174~~ 3	125	4.8	26	47	.0265
2 Feet	10.4	~~282~~ 6	144	7.1	31	40	.0315
3 Feet	6.8	~~291~~ 4	152	4.8	27	45	.3215
						Avg	.398/4 = .0995
Site 3							
Surface	10.2	~~156~~ 4	658	14.7	21	43	.1825
1 Foot	23.9	~~229~~ 4	987	9.4	28	2	.1450
2 Feet	27.2	~~201~~ 6	1270	20.2	38	38	.0930
3 Feet	3.4	~~75~~ 8	2565	13.0	6.8	4.6	.7625
						Avg	1.183/4 = .296 (3 = .140)
Site 4							
Surface	~~5.2~~ 17.1	~~1188~~ 10	1933	8.7	95	620	1.8750
1 Foot	9.6	~~475~~ 6	5159	5.3	23	63	.3425
2 Feet	9.7	~~1030~~ 5	234	4.1	20	51	.6875
3 Feet	8.0	~~100~~ 10	829	4.3	13	10.2	1.0750

site

7	8	9
4	5	6
1	2	3

DUS 4's 6-9-77

	~~Cadmium (ppm)~~ Arsenic	~~Zinc (ppm)~~ Sulfides	Copper (ppm)	Chromium (ppm)	Nickel (ppm)	Lead (ppm)	Mercury (%)
Site 5							
Surface	~~8.3~~ 11.1	~~8760.0~~ 24	1284	12.4	162.6	380	1.375
1 Foot	19.3	~~208.0~~ 14	150	6.3	51.8	13	1.675
2 Feet	21.1	~~2550~~ 10	1102	6.4	99.6	103	4.700
3 Feet	~~4.0~~ 25.0	~~9680~~ 70	5462	7.9	326	120	.182
Site 6							
Surface	24.3	~~2000~~ 4	373	9.0	68	66	1.8725
1 Foot	35.6	~~5020~~ 2	92	8.8	22	17	.5625
2 Feet	35.9	~~8220~~ 2	151	8.4	52.6	18	3.950
3 Feet	22.0	~~1614~~ 52	94	7.2	45.4	21	.950
Site 7							
Surface	~~4.5~~ 21.1	~~2652~~ 4	94	13.9	92.8	52	.825
1 Foot	9.7	~~1670~~ 4	81	17.3	55.8	23	
2 Feet	~~92.2~~ 7.7	~~76,500~~ 70	374	8.2	40.2	408	
3 Feet	~~4.9~~ 8.3	~~2,896~~ 74	30	4.0	14.2	22.4	.1755
Site 8							
Surface	~~3.5~~ 6.0	~~66,740~~ 8	686	126.0	1076	277.6	8.25
1 Foot	~~27.9~~ 2.8	~~56,100~~ 12	795	78.0	177	216	2.950
2 Feet	~~18.3~~ 3.4	~~8560~~ 9	25,147	92.0	162	268	19.500
3 Feet	3.3	~~2360~~ 11	87,097	28.0	150	141	1.750

Arsenic Sulfides

	~~Cadmium~~ (ppm)	~~Zinc~~ (ppm)	Copper (ppm)	Chromium (ppm)	Nickel (ppm)	Lead (ppm)	Mercury (%)
Site 9							
Surface	2.1	~~600~~ 6	228	16.4	29.8	73	8.250
1 Foot	2.7	~~4560~~ 4	34	40.0	94.0	116	.950
2 Feet	~~4.8~~ 2.3	~~3440~~ 34	37,197	70.5	144	168	2.300
3 Feet	2.5	~~785~~ 8	34,197	13.9	44	68	4.3

Note: On Mercury - Actual visual metallics.

	Chlorinated Hydrocarbons	P.C.B. (ppm)
Site 1		
Surface	N.D.	0.5
1 Foot	N.D.	1.2
Site 2		
Surface	N.D.	1.8
1 Foot	N.D.	1.0
Site 3		
Surface	N.D.	1.5
1 Foot	N.D.	1.8
Site 4		
Surface	N.D.	2.5
1 Foot	N.D.	0.8
Site 5		
Surface	N.D.	2.5
1 Foot	N.D.	1.8
Site 6		
Surface	N.D.	12.0
1 Foot	N.D.	0.9
Site 7		
Surface	N.D.	16.0
1 Foot	N.D.	18.0

	Chlorinated Hydrocarbons	P.C.B. (ppm)
Site 8		
Surface	N.D.	28.0
1 Foot	N.D.	4.5
Site 9		
Surface	N.D.	8.5
1 Foot	N.D.	24.0

Note: Potassium Compound Aroclor 1248 present in all Sites except Site 6 which contains Aroclor 1260.

Add : ~~On mercury - actual [illegible] [illegible]~~ -

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

22

August 5, 1974

Mr. Ronald Maylath
New York State Department of
Environmental Conservation
50 Wolfe Road
Albany, New York

Dear Mr. Maylath:

As per our conversation of July 23, enclosed is the correspondence from Chem-Trol, and also a copy of their Patent Application.

I do have some questions in my mind concerning the stability of the mercury sludge that is produced from their process. Knowing that buried sludges become anaerobic with the production of acid conditions accompanied by ammonia production, it would seem to me that their basic carbonate might break down to the same mercury sulfide they object to in their Patent Application.

Very truly yours,

Michael V. Polito
Emergency Response Branch

Enclosures

SA/ERB:MVPolito:nde:Bldg.209:x549:8/5/74

CONCURRENCES

SYMBOL ▶	SA/ERB	SA/ERB	SA/ERB					
SURNAME ▶	POLITO	LAMP'L	LIBRIZZI					
DATE ▶	8/5/74							

EPA FORM 1320-1

OFFICIAL FILE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

21

August 5, 1974

Mr. Martin Tanzer
Supervisor, Aquatic Service
United States Testing Service
Hoboken, New Jersey

Dear Mr. Tanzer:

On this date, August 5, I received additional Coring Samples from the Ventron site. The sites sampled to date have been:

July 11 - Sites 4, 5, 7 and 8

August 4 - Sites 1, 2, 3 and 6

Still remaining to be sampled is Site 9. I suspect your not sampling was an oversight and trust you will complete the sampling as agreed.

Also, as of this date, I have not received the chemical analysis for the liquid wastes to be processed by Chem-Trol, which Mr. Santoro of Gaess Environmental Services, a subsidiary of Chem-Trol, (retained by Rovic) said you would supply.

Sincerely yours,

Michael V. Polito
Emergency Response Branch

cc: Mr. Andrews, Rovic Construction
Mr. Gluckstern, Enforcement
Mr. Longstreet, NJSDEP

SA/ERB:MVPolito:nde:Bldg.209:x549:8/5/74

CONCURRENCES

SYMBOL	SA/ERB	SA/ERB	SA/ERB					
SURNAME	POLITO	LAMP'LA	LIBRIZZI					
DATE	8/5/74							

EPA FORM 1320-1 8/5/74

OFFICIAL FILE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF SOLID WASTE MANAGEMENT PROGRAMS

20

SUBJECT: Mercury Contaminated Earth DATE: July 29, 1974

FROM: Alfred W. Lindsey, Program Manager, Technology Assessment, Hazardous Waste Management Division (AW-565) A W Lindsey

TO: M. Polito, Oil and Hazardous Materials Spills Section Region II, EPA

This is in response to your request for advice on a mercury contamination problem at the site of a former mercury reclaimer. As I understand it, you have identified rather severe metallic mercury contamination of a localized area (20 X 20 ft.) and probably somewhat lesser contamination of perhaps a 200 yard square area. Please be aware that my comments are preliminary in nature only; both the time and information provided have been insufficient to do more than provide some thoughts on options and approaches.

The first step is to define the limits of the problem which you have indicated, has begun. Core borings will show how deep the contamination has gone. Tests should also be run to determine if the mercury is methylating in ground, and if it is traveling from the site through the groundwater. The latter could be determined by dropping monitoring wells 10 to 20 yards from the perimeter of the site. Samples of surface waters and bottom deposits in the surrounding areas should also be checked. If the material is not migrating, then there is no immediate hazard. If such proves to be the case, and in view of the fact that the earth contamination has probably existed for some time, it may be preferable from both an economic and safety point of view, to simply leave the material in place and monitor wells situated around the site. The high organic matter content of the soils which one would expect in the "meadowlands," might help to prevent migration. You mentioned that the present owner would like to build parking lots over the site. Actually, if the material is not migrating and if it is decided to leave the material on site, paving over would probably be beneficial since it would help to prevent percolation from rain water. However, one would not want to construct a permanent expensive structure on the site in the event that it might later become necessary to excavate the area.

On the other hand, if the material is migrating, then a potentially serious hazard exists, one which will require remedial action. Unfortunately, we know of no chemical reagent which can simply be spread on the ground which will detoxify the material or arrest its mobility with any certainty. Excavation would probably be required. Disposal

of the material would then be necessary; the two apparent alternatives are (1.) recovery of mercury, and (2.) land disposal in chemical waste land disposal site.

Georgia - Pacific in Bellingham, Washington, has developed a process for roasting chlor-alkali plant sludges in a multiple hearth furnace and condensing the mercury vapor. This has been demonstrated in full scale under EPA grant with good results, and is reportedly in routine use. A similar process could probably be used with contaminated earth. More information could be obtained from:

Mr. Richard Perry
Georgia - Pacific Corporation
Bellingham, Washington 98225

or

Mr. Ralph H. Scott
EPA Pacific Northwest Water Laboratory
200 S.W. 35th Street
Corvallis, Oregon 97330

While it would probably not be practical to ship quantities of earth to Washington even if Georgia- Pacific were able and willing to handle it, thermal vaporization followed by condensation seems to be the only practical mercury recovery alternative. In fact, roasting and retorting are the common processes used for separating mercury from ores. Retorting produces a much smaller gas volume to deal with, and thus appears preferable. It seems possible to me that mercury manufacturers might be willing and able to reprocess this contaminated earth through their facilities. The feasibility of this approach would depend on volumes, concentrations, and costs, as well as on technical practicality. A list of the domestic mercury manufacturers is in Volume VI of the TRW report with which you are familiar. While I am not familiar with the technology employed by the mercury reclaimers, it is possible that they use a roasting or retorting technique or can in some other way handle this material. We can supply a list of reclaimers if desired.

If reclamation proves not to be practical, then land disposal is the last resort. If volumes are small, the material might be drummed and the drums coated with polyurethane foam. If volumes are large, a specially constructed land disposal site will be required. Such a site would be located away from water sources, in a soil area high in clay content and would incorporate a clay and an impermeable

liner (concrete, hypalon, etc.). The site should be covered and sealed with similar impermeable materials.

One other possible approach involves contracting for disposal with one of the progressive industrial waste disposal firms. It does not seem likely that these firms would be able to handle sizeable volumes, but it would certainly not hurt to contact them prior to deciding on land disposal. Your office periodically receives updates of a list of these facilities.

With the information presently available, this is about all of the asssitance we can give. We will appreciate being kept informed of developments in this case, and if we can be of further assistance, please call.

cc: Messrs. J. P. Lehman
W. Sanjour
W. Kovalick
E. Lazar
A. Hayes
D. Farb
D. Sevetsky, Region II
C. Simon, Region II

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

2-SA-ER

19

July 24, 1974

Rovic Construction - Soil Contamination

Henry Gluckstern
Enforcement and Regional
Counsel Division
EPA, Region II
26 Federal Plaza
New York, New York 10007

THRU: William Librizzi, Chief
Emergency Response Branch

As per the agreements of the meeting of July 1, 1974, coring samples of the Rovic Construction site were undertaken by the United States Testing Company, Inc. under my supervision.

Anticipating the receipt of the analysis of these samples and future action, would you advise me in writing of:

a) Standards which define a "contaminated soil"

b) Statutory authority that allows me to require that "contaminated" soil be removed from the Rovic property

c) Applicable standards and law which Rovic runoff is in violation

I will hold in abeyance any action I would take concerning Rovic pending reply from you.

Michael V. Polito
Emergency Response Branch

SA/ERB:MVPolito:nde:Bldg.209:x549:7/24/74

CONCURRENCES

SYMBOL	SA/ERB	SA/ERB	SA/ERB					
SURNAME	POLITO	LAMP'L	LIBRIZZI					
DATE								

EPA FORM 1320-1

OFFICIAL FILE COP

chem-trol

POLLUTION SERVICES, INC. P.O. BOX 200, MODEL CITY, NEW YORK 14107 • TELEPHONE 716—754-8231

18

July 23, 1974

Mr. William Librizzi, Chief
Emergency Response Branch
U.S. Environmental Protection Agency
Edison, N.J. 08817

Dear Sir:

This letter is in response to a request from your Mr. Polito regarding emergency permission for our company, Chem-Trol Pollution Services, Inc., to remove and process aqueous mercury waste from the premises of Ventron Corporation, Carlstadt, N.J. We are performing this disposal under contract to Rovic Construction Company of Jersey City, N.J.

It is our interest to remove this waste in its entirety from the Ventron premises for transport via our tank trucks to our chemical processing facility at Model City, N.Y. Our best estimate is that there are approximately 40,000 gallons of aqueous material to be removed and processed.

In accordance with Mr. Polito's request, we have requested U.S. Testing Laboratories to forward you their analysis of this waste, which appears to contain an average mercury level of about 50 p.p.m.

We have all of the necessary permits to handle and process all mercury wastes at our facility. Our request for approval of June 20, 1973 to the Niagara County Health Department was favorably responded to in a letter returned to us on August 23, 1973; a copy of this approval is attached. Further, a copy of our patent 3,804,751 is enclosed. As information, there is no liquid effluent from our plant site after stabilization of the mercury.

chem-trol

POLLUTION SERVICES, INC. P.O. BOX 200, MODEL CITY, NEW YORK 14107 • TELEPHONE 716—754-8231

If you have further questions about the unique capabilities of Chem-Trol, you may also contact Mr. Jack Lehman, E.P.A., Washington, D.C.

We appreciate your prompt attention to approving this request in order that we might honor our contract with Rovic. Please feel free to call me at my office at the premise of our Gaess Environmental Service subsidiary, Passaic, N.J. 07055 (201-773-9490).

Very truly yours,
GAESS ENVIRONMENTAL SERVICE
(Div. of Chem-Trol Pollution Services, Inc.)

John R. Santoro
Regional Manager

cc: Michael Polito
U.S. Environmental Protection Agency

JRS/jd

NIAGARA COUNTY HEALTH DEPARTMENT
525 BEWLEY BUILDING
LOCKPORT, NEW YORK 14094

CHEM-TROL.
REC.
AUG 23 1973

LW		GE
SH		PLANT
TR		ACCT
FB		SALES
AM	VC	LAB
DC	JW	MKTG

August 23, 1973

Mr. Louis E. Wagner, President
Chem-Trol Pollution Services, Inc.
P. O. Box 200
Model City, New York 14107

Re: Mercury Sludge Disposal

Dear Sir:

I have reviewed your proposals for disposing of mercury sludge at your disposal site and this department has no objections to this procedure subject to the following conditions:

a. All disposal sites must contain an impermeable liner to prevent leaching into the soil.

b. You must provide standpipes or other suitable means for obtaining periodic (bi-weekly) samples of liquid collecting in the landfill site.

c. The mercury sludge must be placed in an isolated area of the landfill and not mixed with other materials that you may be required to dispose of in the landfill.

d. A routine sampling and analysis must be performed on leachate and the depth of liquid and mercury concentration in ppm. must be furnished to this department by you or by Hooker Chemical Corporation on a monthly basis.

e. A report will be furnished monthly on the volume (cubic yards) and weight of mercury sludge deposited in the landfill.

f. In addition to the above, you must continue to meet all requirements of Part 19, New York State Sanitary Code as it relates to proper operation of a sanitary landfill.

Please call me if you have any questions regarding this matter.

Very truly yours,

Ernest R. Gedeon
Acting Assistant Commissioner
for Environmental Health

ERG/vrc

Printed on 100% recycled paper.

chem-trol

JOHN R. SANTORO
Regional Manager, Marketing/Sales
Gaess Environmental Services Corp.
Subsidiary of Chem-Trol Division

253 River Drive
Passaic, New Jersey 07055
201-773-9490

POLLUTION SERVICES, INC.
P.O. BOX 200, MODEL CITY, N.Y. 14107
TELEPHONE 716-754-8231

SCA SERVICES SUBSIDIARY

666-1372

A CENTRAL PROCESSING FACILITY
SPECIALIZING IN THE TREATMENT
OF INDUSTRIAL CHEMICAL WASTES
IN ACCORDANCE WITH
FEDERAL AND STATE ANTI-POLLUTION CODES

SERVICES:

- Custom Chemical Distillation
- Chemical Disposal
- Transportation
- Solvent and Chemical Sales
- Laboratory Services

United States Patent Office

3,804,751

Patented Apr. 16, 1974

3,804,751

DISPOSAL OF WASTES CONTAINING MERCURY

Andrew T. McCord, Snyder, and Louis E. Wagner, Elma, N.Y., assignors to Chem-Trol Pollution Services, Inc., Model City, N.Y.

No Drawing. Filed Jan. 19, 1973, Ser. No. 325,107
Int. Cl. C02b 1/20
U.S. Cl. 210—50 11 Claims

ABSTRACT OF THE DISCLOSURE

A method of disposing of wastes containing metallic mercury by treating such wastes with sulphuric acid and then neutralizing the treated wastes with a lime slurry to convert the metallic mercury into an insoluble form of mercury under neutral and alkaline conditions.

BACKGROUND OF THE INVENTION

This invention relates generally to the treatment of wastes containing mercury and, more particularly, to a process for treating or handling waste mercury muds generated from mercury cell processes.

One of the major problems encountered in the disposition of mercury wastes, particularly those mercury waste sludges or muds generated from mercury cathode electrolytic cells, is the safe disposition of the metallic mercury contained therein. The problem resides in the vapor pressure of metallic mercury, which is 0.00277 mm. Hg at ambient temperatures. Investigations have demonstrated that if metallic mercury is placed in an enclosed flask, the atmosphere in the flask will eventually become saturated with mercury vapor to the extent of about 24 parts per million. Therefore, if mercury sludges or muds contain metallic mercury, it follows that the atmosphere above such muds can contain dangerous quantities of mercury.

Attempts have been made to destroy the metallic mercury in these wastes or muds by converting the metallic mercury into compounds. One common approach is to treat the mercury muds with sulphide to produce mercury sulphide, which is considered insoluble and is buried along with the muds as landfill. However, it has been found that any alkalinity will cause some dissolution of the mercury and the liquid portion obtained by redissolution can obtain several parts per million of soluble mercury which can leach out and ultimately find its way to our streams and other natural waters for possible consumption by marine life and directly or indirectly by human beings.

SUMMARY OF THE INVENTION

Accordingly, it is a primary object of the present invention to provide a simple method of treating wastes or muds containing metallic mercury in a manner converting the metallic mercury to an insoluble form of mercury under neutral or alkaline conditions.

It is another object of this invention to provide a method of treating mercury muds to destroy substantially all the metallic mercury contained therein by conversion into insoluble mercuric carbonate in neutral and alkaline environments.

It is a further object of this invention to provide a method of treating waste mercury muds with spent pickle liquor to safely dispose of both waste materials.

The foregoing and other objects, advantages and characterizing features of the present invention will become clearly apparent from the ensuing detailed description thereof.

DETAILED DESCRIPTION OF AN ILLUSTRATIVE EMBODIMENT

The bulk of the waste streams containing mercury consist of muds generated in the mercury cell process and dilute liquors containing small quantities of soluble mercury compounds. While the process of this invention will be conveniently described in connection with the treatment of mercury muds generated in the mercury cell process, it should be understood that this invention is in no sense limited thereto, but has utility in treating wastes containing mercury evolved from any source or process.

In the mercury cell process, liquid mercury is used as the cathode in the electrolysis of an aqueous sodium chloride solution to form chlorine, hydrogen and sodium hydroxide. The raw material, salt, is extracted along with spent electrolyte from the mercury cell process. The spent electrolyte is a strong sodium chloride solution, saturated with chlorine, which is removed after the spent electrolyte is removed from the mercury cell process. The chlorine free electrolyte, which contains some sodium chlorate and perchlorate, is mixed with other waste streams from the process which often contain finely divided metallic mercury. The crude salt contains sand, clay, and many metallic impurities. After the waste electrolyte is used to dissolve the salt, it is usually treated with lime or calcium carbonate which precipitates metallic impurities in the form of hydroxides or carbonates. The clean brine is then returned to the mercury cell for further electrolysis. The precipitate, together with the sand, clay, etc. constitute the waste muds to be treated by the process of this invention.

A typical mercury waste mud can contain sand, clay, alumina, iron hydrate, sodium chloride, sodium hydroxide, calcium carbonate, sodium chlorates and perchlorates, mercuric chloride, mercuric oxide and metallic mercury. Metallic mercury could be the most harmful ingredient in these muds, which are often used as landfill or simply buried beneath the earth's surface as a convenient mode of disposal.

Such typical muds can contain up to 35% calcium carbonate, up to 50% total solids, and may contain as much as 1000 parts of mercury, both soluble and insoluble, per million parts of waste muds. Since the metallic mercury exerts a vapor pressure of 0.002777 mm. Hg at 30° C., the atmosphere surrounding such muds may contain up to 24 p.p.m. Hg at 30° C. Accordingly, it is essential to destroy all of the metallic mercury in such wastes by conversion into some compound, preferably an insoluble compound, preferably an insoluble compound with negligible vapor pressure, before burying such wastes.

The conventional practice is to treat such muds with sulphide to obtain insoluble mercury sulphide and bury the latter along with the muds. However, it has been found that any alkalinity in the system will effect some redissolution of the mercury and the liquid portion of the muds can contain several parts per million of soluble mercury. Utilizing the method of atomic absorption, an analysis of the liquid portion of waste mercury muds treated with sodium sulphide in the well known manner practiced in industry to convert the mercury into mercury sulphide analyzed 110 parts per billion of soluble mercury. Repeating this treating operation with an excess of sodium sulphide so that the final pH was adjusted to 9 yielded a filtrate, i.e. the liquid portion of the muds, containing 3600 parts per billion of soluble mercury. The above analysis clearly demonstrated that mercury sulphide becomes soluble in an alkaline environment and when buried with the muds, can leach out to contaminate natural streams and waters.

In accordance with the process of the present invention, the waste muds containing metallic mercury are

treated in a manner producing an insoluble form of mercury which remains insoluble in the muds under neutral or alkaline conditions, thereby rendering the waste muds harmless or more desirable as a landfill. To this end, the waste muds generated in the mercury cell process, and which contain approximately 35% $CaCO_3$ along with metallic mercury, are mixed with dilute sulphuric acid. In lieu of diluted sulphuric acid, the muds can be blended with a pickle liquor, which is generated as a waste material in the pickling of steel and which contains sulphuric acid. The usual spent pickle liquor contains a mixture of about 3 to 10% sulphuric acid (H_2SO_4) and about 5–19% ferrous sulphate ($FeSO_4$). Using spent pickle liquor solves the problem of disposing of this waste material along with the disposal of waste mercury muds.

Mixing the diluted sulphuric acid or pickle liquor with the waste muds converts the calcium carbonate to calcium sulphate according to the following equation:

$$CaCO_3+H_2SO_4 \rightarrow CaSO_4+CO_2+H_2O$$

The sodium chlorate and perchlorate in the muds react with the acid to produce chloric and perchloric acid, respectively, according to the following:

$$2NaClO_3+H_2SO_4 \rightarrow 2HClO_3+Na_2SO_4$$

$$2NaClO_4+H_2SO_4 \rightarrow 2HClO_4+Na_2SO_4$$

Any finely divided mercury is oxidized to mercury chloride or mercuric oxide as follows:

$$Hg+2HClO_3 \rightarrow HgCl_2+H_2O+O_2$$

$$Hg+HClO_3 \rightarrow HgO+HCl+O_2$$

Thus, all the metallic mercury is destroyed by conversion into some mercury compound.

The resulting muds are further diluted with an equal or greater amount by weight of spent pickle liquor. The ratio of spent pickle liquor to the muds can range from one to one to twenty to one by weight, so long as there is sufficient sulphuric acid in the pickle liquor to react with the minor amount of mercury present in the muds. All of the calcium carbonate is converted to calcium sulphate and carbon dioxide is released. The above mercury compounds, and others that may be present in the waste muds, are converted to basic sulphates as illustrated, for example, by the following equations:

(a)

$$3HgO+H_2SO_4 \rightarrow HgSO_4 \cdot 2HgO+H_2O$$

(b)

(1) $$HgCl_2+H_2SO_4 \rightarrow HgSO_4+2HCl$$

(2) $$HgSO_4+2HgO \rightarrow HgSO_4 \cdot 2HgO$$

The resulting slurry is then neutralized to about 7.5 pH with a thick lime slurry. The percentage of lime or calcium oxide in the slurry can range from about 5% to 28%, and preferably 15–25%. Calcium oxide concentrations above and below this preferred range are practical, but not desirable. The calcium carbonate present in the lime slurry reacts with the mercuric sulphate to produce insoluble basic mercury carbonate according to the following equation:

$$HgSO_4 \cdot 2HgO+CaCO_3 \rightarrow HgCO_3 \cdot 2HgO+CaSO_4$$

Thus, any metallic mercury present in the waste sludges is converted to an insoluble form of mercury, namely basic mercuric carbonate, which remains insoluble under neutral or alkaline conditions and, as such, forms a highly desirable landfill material. We have found that large concentrations of chlorides, such as sodium chloride or calcium chloride, do not solubilize the insoluble basic mercury carbonates.

The following example further illustrates the principles of this invention, but it is not to be construed as limiting the invention thereto.

EXAMPLE I

500 gallons of mercury sludge or mud was slurried in 5000 gallons of spent pickle liquor. The composition of the mercury sludge was analyzed as having the following ingredients:

Ingredients:	Percent by weight
Sodium chloride	20
Chlorates and perchlorate	1
Calcium carbonate	35
Insolubles, sand oxides, alumina, etc.	13
Water	31

The metallic mercury content in the sample sludge was 100,000 parts per billion. The pickle liquor analyzed ferrous sulphate at 18.3% by weight and sulphuric acid at 8.2% by weight.

All of the calcium carbonate dissolved in the pickle liquor producing calcium sulphate and carbon dioxide was released.

The resulting slurry was then neutralized to 7.5 pH with 2000 gallons of a 15–25% lime slurry, i.e. 15–25% calcium oxide, in a centrifugal reactor or neutralizer of the type disclosed in copending patent application Ser. No. 182,941, filed Sept. 23, 1971 and assigned to the same assignee as the present invention. The calcium carbonate in the lime slurry reacted with the mercuric sulphate to produce insoluble mercuric carbonate.

The mixture discharged from the neutralizer was a solid mass in the form of a heavy unpumpable paste containing some liquid. A quantity of this paste was filtered in a vacuum filter, and the filtrate or liquid phase analyzed less than 10 parts per billion of soluble mercury immediately after formation and also after several days as determined by the method of atomic absorption. The mercury in the solid phase consisted of basic mercuric carbonate, which is not soluble even at 9 pH.

From the foregoing, it is apparent that the objects of the present invention have been fully accomplished. As a result of this invention a novel method is provided for disposing of wastes containing metallic mercury by treating the wastes in a manner converting the metallic mercury into an insoluble form of mercury. The wastes are treated with dilute sulphuric acid or a spent pickle liquor comprising sulphuric acid to convert the metallic mercury into mercury compounds, which are then converted into basic sulphates by blending the treated wastes with about ten times their weight of spent pickle liquor. The resulting slurry is then neutralized to 7.5 pH with a heavy lime slurry to convert the mercuric sulphate to basic mercuric carbonate, which is insoluble in neutral and alkaline environments up to as high as 9 pH. The neutralization process produces a solid mass having about a 50% liquid phase, which analyzes less than 10 p.p.b. of soluble mercury. Utilizing spent pickle liquor in the process of this invention solves the problem of disposing of this waste material along with the disposal of the waste mercury muds. The resulting product can be safely used as landfill without concern about contaminating or polluting the environment.

While the foregoing method of this invention has been disclosed in detail, it is to be understood that this has been done by way of illustration only.

We claim:

1. A method of disposing of wastes containing calcium carbonate and metallic mercury comprising: treating the wastes with a minor amount of sulphuric acid to convert the metallic mercury in said wastes to mercuric compounds; blending the treated wastes with a substantial amount of spent pickle liquor to convert the mercuric compounds to basic mercuric sulphates; and neutralizing the resulting product with a heavy lime slurry to obtain a solid mass comprising an insoluble form of mercury and having a small portion of liquid containing less than 10 parts per billion of soluble mercury.

2. A method according to claim 1 wherein said wastes are treated with spent pickle liquor containing said minor amount of sulphuric acid.

3. A method according to claim 1 wherein the ratio of said pickle liquor to said treated wastes ranges from about one to one by weight to twenty to one by weight.

4. A method according to claim 1 wherein the ratio of said pickle liquor to said treated wastes is about ten to one by weight.

5. A method according to claim 1 wherein said lime slurry contains calcium oxide present in an amount of from 5 to 28% by weight of the total weight of said lime slurry.

6. A method according to claim 1 wherein said lime slurry contains calcium oxide present in an amount of from 15 to 25% by weight.

7. A method of disposing of waste mercury sludges containing calcium carbonate and metallic mercury comprising: mixing said sludges with at least an equal amount by weight of spent pickle liquor containing sulphuric acid to convert the metallic mercury into a mercuric sulphate compound; and neutralizing the mixture with a heavy lime slurry to obtain a solid mass portion containing insoluble mercuric carbonate and a liquid portion containing less than 10 parts per billion of soluble mercury.

8. A method according to claim 7 wherein said lime slurry contains from 5 to 28% by weight of calcium oxide.

9. A method according to claim 7 wherein said lime slurry contains from 15 to 25% by weight of calcium oxide.

10. A method according to claim 7 wherein the ratio of said pickle liquor to said sludge ranges from about one to one by weight to twenty to one by weight.

11. A method according to claim 7 wherein the ratio of said pickle liquor to said sludge is about ten to one by weight.

References Cited

UNITED STATES PATENTS

3,695,838	10/1972	Knepper et al.	75—121
3,476,552	11/1969	Parks et al.	75—121
2,846,305	8/1958	Ashley et al.	75—121

SAMIH N. ZAHARNA, Primary Examiner

B. CASTEL, Assistant Examiner

U.S. Cl. X.R.

210—53

UNITED STATES GOVERNMENT

2-Way Memo

17

Subject: Ventron Sediment Samples

DATE OF MESSAGE 7/22/24

DATE OF REPLY

INSTRUCTIONS

Use routing symbols whenever possible.

SENDER:
Forward original and one copy.
Conserve space.

RECEIVER:
Reply below the message, keep one copy, return one copy.

To: FRAN Brezenski
Through
Bill Librizzi

FOLD FOLD

USE BRIEF, INFORMAL LANGUAGE

Because of legal involvement I have reevaluated the need for analyses on sediment samples from subject Project.

Please analyze for the following substances in Site 8, all depths (four samples)

TOTAL

1. Mercury — MOST IMPORTANT.
2. Cadmium
3. Pb
4. Zn
5. CR
6. Ni
7. As.

The developer will be very anxious for release of this material, and our analysis results will affect my release decision.

From: Mike Polito.

OPTIONAL FORM 27
OCTOBER 1962
GSA FPMR (41 CFR) 101–11.6

5027–102

3. TO BE RETAINED BY ORIGINATOR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

16

July 22, 1974

Mr. Martin Tanzer
Supervisor, Aquatic Service
United States Testing Co., Inc.
Hoboken, New Jersey

Dear Mr. Tanzer:

As per our agreements at the meeting on July 1, 1974, the Rovic Construction Co. was to retain the United States Testing Company, Inc. for the purpose of taking coring samples at the "Ventron" site. The coring samples were to be taken at sites specified by the Environmental Protection Agency.

On July 11, 1974, we met at the "Ventron" site and proceeded with the coring samples at nine selected sites. We received our duplicate samples for four of the sites (4, 5, 7 and 8) which were cored and sampled on March 11. The five remaining corings and samples were to be made under your sole supervision the next day, Friday, July 12, with the split samples to be delivered that day to me in Edison.

On July 17, not having received the samples, I contacted you and you advised that the samples would be placed in the mail that day. To this date, we have not received these samples.

If U. S. Testing did not complete the corings as agreed, or if there is some other reason why the samples were not delivered to this office, please let me know. If the samples were mailed, I would appreciate it if you would also let us know.

Very truly yours,

Michael V. Polito
Emergency Response Branch

cc: D. Longstreet
H. Gluckstern

SA/ERB:MVPolito:nde:Bldg.209:x549:7/22/74

CONCURRENCES

SYMBOL	SA/ERB	SA/ERB	SA/ERB					
SURNAME	POLITO	LAMP'L	LIBRIZZI					
DATE								

EPA FORM 1320-1

OFFICIAL FILE COPY

United States Testing Company, Inc.
Environmental Sciences Division

1415 PARK AVENUE
HOBOKEN, NEW JERSEY 07030 (201) 792-2400 (212) 943-0488

15

July 19, 1974

Mr. Mike Polito
E.P.A.
Edison, New Jersey 08817

Dear Mr. Polito:

Please find enclosed soil samples collected from the Rovic Construction site in Woodridge, New Jersey on July 11th and 12th, 1974. These samples include four ball jars for each site, including sites 1, 2, 3 and 4.

Very truly yours,

UNITED STATES TESTING COMPANY, INC.

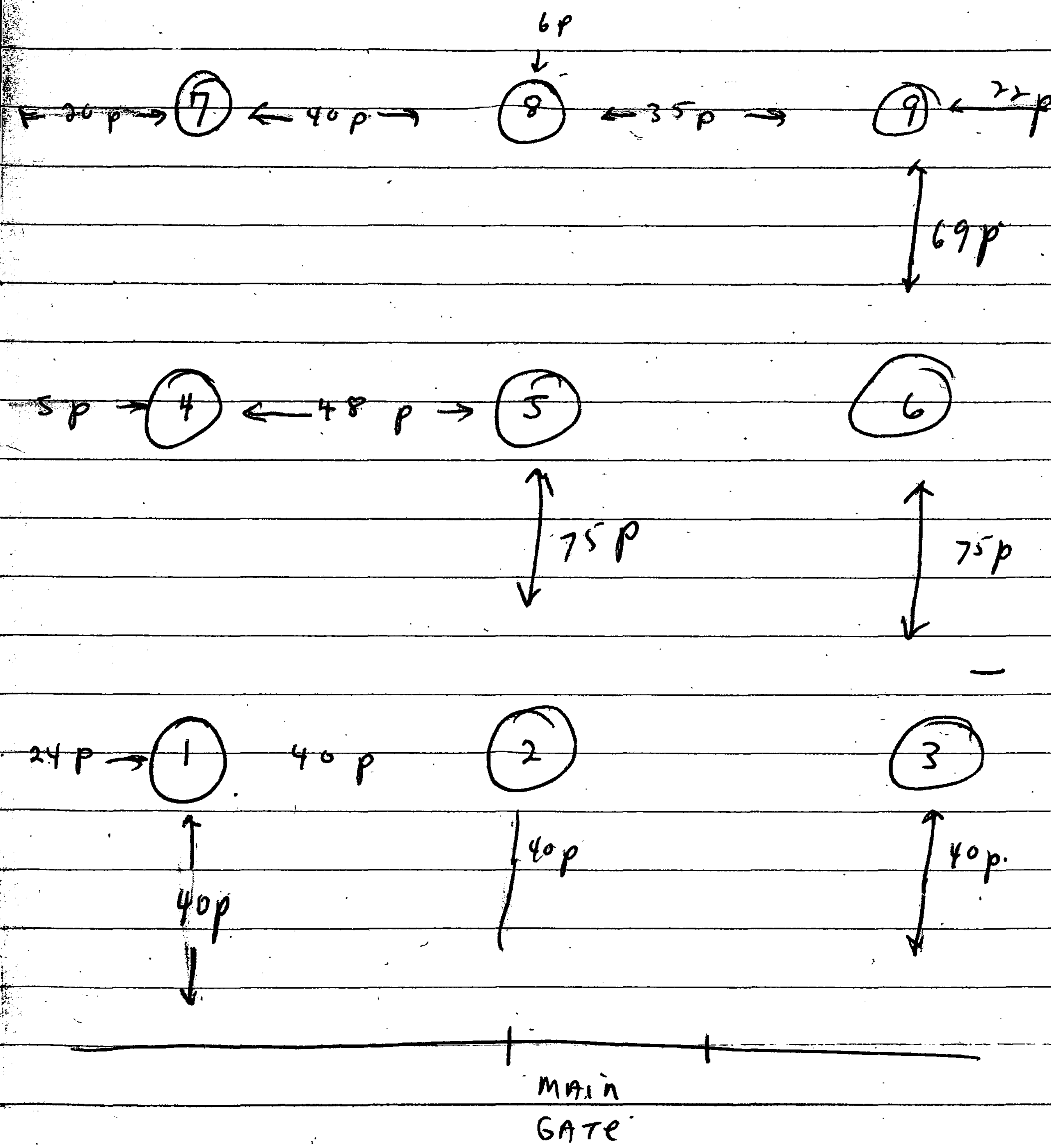
Howard W. Leemann

Howard W. Leemann
Environmental Sciences Division

HWL/js
Enclosure

Rcd. 8/5/74 M.V. Polito After returned from vacation

Sampling Sites



D-US 3-9-77

prepared by M. V. Polito

p = paces

SHIPPING ORDER

UNITED STATES TESTING CO., INC.

1415 PARK AVENUE
HOBOKEN, N. J.

CUST. REQ. NO. | CUST. ORD. NO. | CUST. ORD. DATE

CONSIGNEE
Mr. Mike Polito
E.P.A.
Edison, New Jersey 08817

INS... 14 ...S

TO BE FURNISHED FO...	...TOR	BY
TRUCK, RAILWAY E...	...AIL	-DEPT.
FOR RETURN OF P...	...M	-PURCHASING
FOR MATERIAL SENT	...EPAIR	-PURCHASING

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TEST. NO. | JOB NO.

CLIENT IF OTHER THAN CONSIGNEE

CHARGE FREIGHT TO—
☐ CLIENT ☐ DEPT. $

CHARGE FOR PACKING $

REASON FOR SHIPMENT	INSURE FOR	B/L NO.	P. PD.	COLL.
Samples	$ 600.00			

PURCHASE ORDER NO. IF RETURN	SHIPPED VIA	DATE SHIPPED
	Best Way	

QUANTITY	DESCRIPTION	PACKAGE NUMBER	WEIGHT PER PACKAGE
16	Soil Samples - from Rovic Construction		

My Note - Site sampled - the receipt
1
2
3
6

other receipts 4
5
7
8

Rcd. 7/23/74

INSPECTED BY	PACKED BY	SHIPPER	AUTHORIZED BY	DATE	DEPT.
				7/17/74	E.S.D.

FORM S-280 R4.8.72.4

UNITED STATES TESTING CO., INC.

PACKING LIST

SHIPPING ORDER

UNITED STATES TESTING CO., INC.

1415 PARK AVENUE
HOBOKEN, N. J.

CUST. REQ. NO. | CUST. ORD. NO. | CUST. ORD. DATE

CONSIGNEE
Mr. Mike Polito
E.P.A.
Edison, New Jersey 08817

INSTRUCTIONS

TO BE FURNISHED FOR SHIPMENTS FOR	BY
TRUCK, RAILWAY EXPRESS AND RAIL	-DEPT.
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TEST. NO. | JOB NO.

CLIENT IF OTHER THAN CONSIGNEE

CHARGE FREIGHT TO— ☐ CLIENT ☐ DEPT. $ 4.57

CHARGE FOR PACKING $

REASON FOR SHIPMENT	INSURE FOR	B/L NO.	P. PD.	COLL.
Samples	$ 600.00			

PURCHASE ORDER NO. IF RETURN	SHIPPED VIA	DATE SHIPPED
	Best Way UPS	7/17/74

QUANTITY	DESCRIPTION	PACKAGE NUMBER	WEIGHT PER PACKAGE
16	Soil Samples - from Rovic Construction		28

Rcd 7/23/74 mm

INSPECTED BY	PACKED BY	SHIPPER	AUTHORIZED BY	DATE	DEPT.
			J/ Lehman	7/17/74	E.S.D.

FORM S-280 R4.6.72.4

UNITED STATES TESTING CO., INC.

CONSIGNEE'S NOTICE OF SHIPMENT

UNITED STATES GOVERNMENT

2-Way Memo

13

Subject:

DATE OF MESSAGE 7/18

DATE OF REPLY

INSTRUCTIONS

Use routing symbols whenever possible.
SENDER:
Forward original and one copy.
Conserve space.
RECEIVER:
Reply below the message, keep one copy, return one copy.

To: ~~Bill Libretta~~ VM

FOLD FOLD

USE BRIEF, INFORMAL LANGUAGE

As requested persons contacted (specialists)

1. Dave Savetsky - N.Y. Solid Waste, CEPA - NY)
2. AL Lindsey - Hazardous Waste Mgt. Division (NYSDEC)
3. John Cianci - Industrial Waste Treamet - Research (EPA)
4. Pete Anderson - Ocean Dumping -
5. Al Kascorski (N.J. Solid Waste)

Referred me to Gingrich, who referred to

National Association of Secondary
Materials Industries
330 Madison Ave.
N.Y. C.
212-867-7330
contact M.J. Mighdoll

From: Mike P.

5027-102

1. TO BE RETAINED BY ADDRESSEE

OPTIONAL FORM 27
OCTOBER 1962
GSA FPMR (41 CFR) 101-11.6

12

July 15, 1974

Mr. David Longstreet
N.J. State Department of
Environmental Protection
209 East State Street
Trenton, New Jersey 08625

Dear Mr. Longstreet:

As per our telephone conversation of July 10, this letter describes my observations of the demolition work at the site once occupied by the Ventron Corporation.

On July 8, 1974, I visited the Ventron site, accompanied by Mr. Heleniewski and Dr. Lafornara of this office. The purpose of this visit was to familiarize myself with the area.

Demolition at the site was in process. I observed that the building being demolished was being sprayed with a fire hose. A portion of the runoff from these washings fell alongside the southern side of this building. The rate of outpouring of this water could be described as similar to an open house hose tap. On July 11 when I subsequently visited the Ventron site, I discovered the area on which this water was pouring had an exposed 6 inch drainage pipe. In other words, an exposed pipe in which surface water could readily flow. No great accumulation of surface water was noticed, but I do not know how long they had been spraying.

The drainage ditch on the southern end of the property had a flow, but I could not find the feed water. The drainage ditch water flow moved into an approximately two ft. diameter pipe. I could not find the outflow from this pipe. An overflow weir near the southeastern property fence had a pump hose and pump connected to it. The pump was not pumping during the time I was at the site. The surface of this below ground level weir was covered with an oil-like substance. I could not detect any flow in this pit.

S&A/ER:MVPolito:nde:Bldg.209:x549:7/15/74

CONCURRENCES

SYMBOL	S&A/ER	S&A/ER	S&A/ER					
SURNAME	POLITO	LAMP'L	LIBRIZZI					
DATE		15 July 74						

EPA FORM 1320-1

OFFICIAL FILE COPY

I observed elemental mercury on the ground surface at several site locations.

If you have any questions concerning my observations, please give me a call.

Sincerely yours,

Michael V. Polito
Emergency Response Branch

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

11

REPLY TO ATTN OF: 2 SA-TEC

DATE: July 2, 1974

SUBJECT: Laboratory Analysis - Ventron Corp. - June 27, 1974

TO: Chief, Emergency Response Branch

EPA Lab Sample No.	Sample Source	Hg µg/l
33625 33604	Sample collected from effluent pipe - Ventron Corporation	28,000

Francis T. Brezenski
Chief
Technical Support Branch

EPA FORM 1320-6 (11-71)

10

Rovic Construction
Meeting
7/1/74

NAME	REPRESENTATIVE
William Librizzi	EPA, Emergency Response Branch
Mike Polito	EPA, Emergency Response Branch
Henry Gluckstern	EPA, Regional Counsel, N.Y.
Karl F. Birns	N.J. Dept. of Environ. Protection
David C. Longstreet	N.J. Dept. of Environ. Protection
Kathe Chuisano	N.J. Dept. of Environ. Protection
Joe D'Amore	Rovic Construction
C. Larry Lepre Lekie	Rovic Construction
John F. Andrews	Rovic Construction
Martin S. Tanzer	U. S. Testing Co., Inc.

Martin Tanzer will contact me.

D-VEL 3
6-9-77

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

9

REPLY TO ATTN OF: 2-SA-TEC

DATE: June 28, 1974

SUBJECT: Laboratory Analysis - Ventron Corporation, 6/21/74

TO: Chief
Emergency Response Branch

EPA Lab. Sample No.	Sample Source
46440	Runoff from creek entering plant sewer system (est. flow -- 4,000 gal/hr, Ventron Corp.
46441 33610	Runoff from creek (Berry Creek, Moonachie Ave).
46442 33612	Berry Creek, Paterson Plank Rd.

EPA Lab. Sample No.	Hg µg/1	Ag µg/1	Cd µg/1	Zn µg/1	Ni µg/1	Cu µg/1	Pb µg/1	Mn µg/1
46440	140	< 5	5	325	18	30	395	690
46441	11	6.4	31	525	61	75	950	3390
46442	3.9	7.5	24	175	64	41	1180	2310

Francis T. Brezenski
Chief

EPA FORM 1320-6 (11-71)

8

June 21, 1974

Rovic Construction Corp.
911 Bergen Avenue
Jersey City, New Jersey 07306

Re: Ventron Corporation
demolition site

Dear Mr. Andrews:

I am writing you in reference to a conversation I had with Mr. Robert Wolf of your office on June 21, 1974. During that conversation Mr. Wolf said he would be happy to supply information to EPA so that an accurate record of the demolition work at the Ventron site could be assembled. Please refer to the enclosed attachment.

EPA's Surveillance and Analysis section has informed me that an initial test of Berry's Creek indicated an increase of mercury concentration in the water passing the site from 0.2 mg/l to 14.0 mg/l. On the basis of this information EPA has reason to believe that mercury is being discharged into navigable waters of the United States in possible violation of 33 U.S.C. §407 and 33. U.S.C. §1342 and lawful regulations promulgated thereunder, as a result of the demolition work being performed by Rovic Construction Corporation.

Please be advised that in light of the above, any information which you supply to EPA may be used against your corporation and/or its officers and employees in a legal action for the civil or criminal penalties provided by the above-cited sections and other pertinent provisions of the Federal Water Pollution Control Act Amendments of 1972.

Very truly yours,

Henry Gluckstern
Attorney
Enforcement and Regional
Counsel Division

H. GLUCKSTERN:H.G.
Encl.

2ERC-WE
H.GLUCKSTERN
June 21, 1974

The following information shall be submitted in the format indicated concerning a discharge of mercury from the Ventron demolition site:

1. Date and time of discharge.

2. Date and time of discovery of the discharge.

3. Location of discharge.
   a. name of city and state.
   b. name and address of the facility or establishment at which the discharge occurred, if applicable.
   c. distance of point of discharge from receiving waterway.

4. Description of the material(s) discharged.

5. Quantity discharged.

6. Quantity of discharge which reached the receiving waterway.

7. Description of the facility or container which originally held the material discharged.

8. Detailed description of the cause of the discharge.

9. Name and address of the owner and operator of the facility causing the discharge.

10. Detailed description of the damage to the environment caused by the discharge.

11. Description of the steps taken to clean up the discharge.

12. Description of the actions taken to mitigate damage to the environment.

13. List of the federal and state agencies, if any, to which the parties named in 9 above reported the discharge, including dates and times of notification and the official contacted.

14. List of names and addresses of all persons you believe have knowledge of the facts surrounding this incident.

After answering the above, the person completing this report shall type the following:

"The above answers are true and complete to the best of my knowledge and belief." The report shall be dated and signed. The title or position of the person completing this report shall appear below his signature, along with his address.

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

5

7

REPLY TO ATTN OF: 2-SA-ER

DATE: June 20, 1974

SUBJECT: Chemical Spill, Ventron Corporation, Woodridge, New Jersey

TO:

Record

On June 20, 1974, I inspected the Rovic Construction site to determine whether the operation was being conducted as required by the State and EPA. Karl Birns, State of New Jersey, Mr. John Andrews of Rovic Construction, and Mr. Anthony Lotiot of Ottolio Demolition were also on scene. There was no demolition being conducted on the site. It appears that no debris has been removed from the site since our June 11 visit. Water discharging through the drain system and into the small wet well is being diverted from the wet well to the empty fuel tanks located on the property.

After a tour of the site, Mr. Birns and myself advised Rovic Construction and Ottolio Demolition of the following:

1. The present method of utilizing drains and diverting runoff from the wet well to the empty storage tanks is acceptable providing sufficient pumping is available to avert overflows. In addition, the outlet pipe should be sealed.

2. Before any new demolition is initiated, a disposal method for the liquids and solids collected thus far and in future operations in the storage tanks should be developed and approved by New Jersey EPA and Federal EPA. Rovic was urged to get such a plan by next Monday.

3. Before demolition can be initiated and throughout the site, materials in drums should be: (a) analyzed to determine contents; or (b) disposed of in the same method as 2 above.

4. ~~Our~~ Operations to remove rubble thus far collected could be initiated providing that the operation is conducted in such a manner as to not cause the removal of surface soil or muds.

5. After demolition and cleanup are completed, a grid system should be developed for soil sample collection. Analyses of these samples for mercury will be made to determine whether additional work is required.

Upon return to the laboratory, I related the results of this meeting to Henry Gluckstern, Office of General Counsel. Henry asked that we attempt to get more sample data above and below the outfall to determine if there is any change in mercury content now that there is no discharge from the facility. Henry seems to feel that Rovic Construction violated FWPCA Act by not submitting a request for a permit.

William Librizzi

William Librizzi
Chief
Emergency Response Branch

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

6

4

REPLY TO ATTN OF: 2 SA-TEC

DATE: June 19, 1974

SUBJECT: Laboratory Analysis - Ventron Corporation - June 7, 1974

TO:

Chief, Emergency Response Branch

EPA Lab Sample No.	Sample Source
33601	Collected from small pile of solid material, 3' deep x 2' x3' at Ventron Corporation
33602	Collected from small tanks 20' x 15' behind Bldg. 13A, Ventron Corporation
33603	Collected from drum behind Bldg. 9, Ventron Corporation
33604	Collected at well at storm water outlet from plant, Ventron Corporation
33605	Collected at pad behind Bldg. 16, Ventron Corporation
33606	Collected from small pile of powdery material (1 cu ft)
33607	Collected from Ventron Corporation — bottle containing a pesticide as per bottle label (Cd dimethyldithiocarbamate)
33608	Collected from concrete trough in front of Bldg. 16, 2" deep, 30-35" long and 1' wide, Ventron Corporation
33609	Collected from mud pile 10' x 2' x ½', Ventron Corp.
33610	Water sample collected above demolition site at Moonachie Rd., Ventron Corporation
33611	Sample of mud collected at a creek above Ventron plant site on Moonachie Rd.
33612	Sample of water collected from Berry's Creek below the Ventron plant site at bridge on Paterson Plank Rd. near Marior Sani-Can.

(5)

RESULTS

(Metals by Atomic Absorption Spectrophotometry Except Where Otherwise Indicated)

EPA Lab Sample No.	Hg mg/l	Ag mg/l	Cd mg/l	Zn mg/l	Ni mg/l	Cu mg/l	Pb mg/l	Mn mg/l	Emission Spec. Scan Al,Mg,Fe
33602	50	<2	<0.1	2	<0.6	<0.6	<1	0.5	*
33604	15	<2	0.12	3	<0.6	<0.6	<1	0.4	*
33608	285	15	0.60	1,800	5	4.8	2	92	
33610	0.22	<2	<0.1	0.6	<0.6	<0.6	<1	0.8	*
33612	14	<2	<0.1	<0.6	<0.6	<0.6	<1	8	

EPA Lab Sample No.	%S	Hg mg/kg	Ag mg/kg	Cd mg/kg	Zn mg/kg	Ni mg/kg	Cu mg/kg	Pb mg/kg	Mn mg/kg	Emission Spec. Scan Al,Mg,Fe
33601		9,500	<50	2.5	155	35	220	95	400	*
33603	40.4	11.5	<100	7	200,000	<30	<30	60	24	
33605		1,000,000								
33606		540	170	5	200,000	670	110	660	310	*
33607	16.5	1,600	<100	110,000	<30	<30	<30	80	10	
33609		17,700	180	43	3,800	190	70	70	2,400	
33611		9.9	<2	2.5	130	0.8	35	45	13	*

*Major components in the residue > 1%.

EPA Sample 33605 contained visible metallic mercury along with dirt and sand particles adhering to the mercury.

EPA Sample 33603 was collected from a drum labelled ziram fungicide (zinc dimethyldithiocarbamate), therefore, elemental analyses for zinc and sulfur were performed.

% S found = 40.4
theoretical = 41.9

% Zn found = 20.0
theoretical = 20.7

EPA Sample 33607 was in a bottle labelled cadmium dimethyldithiocarbamate (CDDC), 10% wettable powder, Woodridge Chemical Corporation. Elemental analysis for cadmium and sulfur and IR analysis established its identity as a 35-46% wettable powder.

% Cd found	=	11.0
theoretical for 100% CDDC	=	31.7
% S found	=	16.5
theoretical for 100% CDDC	=	36.1

The remainder of the sample is probably a clay material.

EPA Sample 33606, based upon emission spec. scan and atomic absorption spectrophotometry, visual inspection and ignition testing, appears to be a mixture of metallic oxides. The brown color is probably mostly due to iron oxides.

Francis T. Brezenski

Francis T. Brezenski
Chief
Technical Support Branch

(5)

5

PLEASE ADDRESS REPLY TO:
P.O. BOX 2809

June 17, 1974

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Rovic Construction Co., Inc.
911 Bergen Avenue
Jersey City, New Jersey

Attention: Mr. Robert H. Wolf

Gentlemen:

A meeting was held on property owned by Rovic Construction Co., Inc. in the Borough of Wood-Ridge, Bergen County, New Jersey on June 12, 1974. The attendees are listed below.

The purpose of this meeting was to establish criteria to meet the requirements of the Telegram Order of June 10, 1974. The following was agreed to:

1. Prior to continuing demolition:

   a. Dig a lined catch basin (ditch) around the property at the end of the natural slope to collect runoff of water and other liquid. The liquid so collected must be analyzed for mercury, cadmium, zinc, petroleum, and other toxic materials as required by this Department. The analysis must be made prior to disposal of the liquid.

   b. Remove all drums, containers, flasks, etc. and petroleum and oily material.

   c. Plug off all drain lines to prevent discharge into ✓ waters of this State.

   d. Debris from demolition prior to June 12, 1974 may be removed if desired at this time as long as water spray is not required nor used.

2. Determine chemical infusion in soil (material and depth). Tests should be for mercury and mercury compounds. This determination must be made and approval received from this Department prior to construction of the parking area and driveways.

3. If the soil is found to be contaminated disposal and/or treatment of the soil must be approved of by this Department.

4. All disposal of chemicals, petroleum and contaminated soil by must be coordinated by this Department, U.S. Environmental Protection Agency and Hackensack Meadowlands Development Commission.

If we do not receive any objections within two (2) weeks of receipt of this letter we will assume acceptance of the conditions stated herein.

Contact Mr. Karl F. Birns, of this Department (telephone 609-292-5560) if you have any questions concerning this matter.

Very truly yours,

David C. Longstreet
Principal Environmental Engineer
Oil and Hazardous Materials Program
Bureau of Water Pollution Control

E23:G8

c.c. E.P.A., Region III, Mr. W. Librizzi
H.M.D.C., Mr. John Bolan

(4)

Attendees to June 12, 1974 meeting with Rovic Construction Co., Inc.:

Dr. Joseph P. Lafornara, U.S.E.P.A., 201-548-3347

Mr. David C. Longstreet, N.J.D.E.P., 609-292-5560

Mr. William Librizzi, U.S.E.P.A., 201-548-3347

Mr. Uwe Frank, U.S.E.P.A., 201-548-3347

Mr. John V. Tekin, Radiac Research Corp., 212-963-2233

Gary P. Hall, Gaess Environmental, 773-9490

Ron Kilez, Gaess Environmental, 773-9490

Robert C. Peterson, Ventron Corp.

Bernard Mageer, Former Ventron Chemist, 201-225-1363

Charles Sievers, Former General Plant Forman Ventron, 641-5043

Robert H. Wolf, The Wolf Org., 201-653-6300

John F. Andrews, Rovic Construction Co., Inc., 201-653-6300

(4)


F.
DETAIL SURVEY
OF PROPERTY LOCATED IN THE
BOROUGH OF CARLSTADT
AND THE
BOROUGH OF WOODRIDGE
BERGEN COUNTY N.J.
CERTIFIED AND GUARANTEED TO TITLE GUARANTEE COMPANY
TO BE CORRECT AND ACCURATE
N.J. 15348
SCALE 1"=120'
JUNE 3, 1960
REV. JUNE, 20. 1960
FRANK W. KOESSNER
PROF. ENGR - SURVEYOR
HACKENSACK N.J.
AVE.
N.45°-35'-15" W.
LANDS NOW OR FMLY OF HENRY S. BERRY
N. 46°-00' W
606.54
FIRST TRACT
S 46°-00' E.
606.54
628.69
NEW JERSEY & NEW YORK R.R.
363.40
NOW OR FMLY PILOT LABORATORY INC.
BOROUGH LINE
SECOND TRACT
FMLY JOSEPHINE C.R.
B STORMS
BOROUGH OF MOONACHIE
BERRY'S
BOROUGH OF WOODRIDGE
BOROUGH OF CARLSTADT
THIRD TRACT
MELCHIOR HELBIG
NOW OR FMLY BURKHARDT PAPER MILLS INC
D.B. 1660 - 469
DITCH
CREEK
FOURTH TRACT
FMLY MELCHIOR HELBIG
S.37° 15' W
865.80
FORMER ℄ OF CREEK
S 44°-41'-30" E.
S. 44°-41'-30" E.
1105 ± DEED
NOW OR FMLY PANHARD OIL COMPANY
BERRY'S
CREEK
NEVERTOUGH
860±

June 10

June 10

Set up file

TELEGRAM

Rovie Construction Company, Inc.
911 Bergen Avenue
Jersey City, New Jersey
Registered Agent - Robert M. Wolf
201-653-6300

And

V. Ottolio
555 Preakness Avenue
Patterson, New Jersey
201-271-4100

Investigation by this Department has found that on or about June 7, 1974 your company was responsible for the discharge of hazardous chemicals and petroleum products into Berrys Creek, a tributary of the Hackensack River, from your property in Wood-Ridge Borough, Bergen County, formerly occupied by Wood-Ridge Chemical Company. This discharge was caused by wetting the area during demolition of buildings on this site. Such discharge from your property should be prevented at all times. This discharge is in violation of statutes of the State of New Jersey, including N.J.S.A. 58:10-23.4 and N.J.S.A. 23:5-28.

If Rovie Construction Company, Inc. does not remove these hazardous chemicals and petroleum products forthwith to this Departments satisfaction, we shall arrange to remove these hazardous chemicals pursuant to N.J.S.A. 58:10-23.5.

Rovie Construction Company, Inc. will be liable for any monies thereby expended either by this Department or by third parties so authorized by us as provided for under N.J.S.A. 58:10-23.7.

D-VEL 2-d
6-9-77
JW

(1)

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

4

REPLY TO ATTN OF: 2-SA-ER

DATE: June 13, 1974

SUBJECT: Chemical Spill, Ventron Corporation, Woodridge, New Jersey

TO:

Record

On June 7, 1974, at 10:30 a.m., Howard Lamp'l received a call from Don Smith, Hackensack Meadowlands, regarding a potential chemical spill at the subject facility, being caused by a demolition operation. At 12:00 noon, the undersigned, Uwe Frank, and Hank Jeleniewski departed to make an inspection. The State of New Jersey, Karl Birns, was notified and a representative from that Bureau also was enroute to the scene. Upon arrival, we met with the Foreman, Tony Lotiot, of the demolition operation. He is employed by Ottillo Demolition Company, Paterson, New Jersey (201-271-4100). Ottillo was hired by Rovac Construction, North Paterson, New Jersey, who owns the property. The original owner, Ventron Corp., departed from the area a month or two ago.

The demolition operation has been underway for the past two weeks. A crane is being employed to knock down buildings, etc., and the materials are being removed from the site via front end loader and trucks. We inspected the operation and took a number of samples. The major concern with the operation is that there were a number of chemicals, in particular, mercury and mercuric compounds and residuals located throughout the plant which can be released to Berrys Creek, a tributary to the Hackensack River. We suspected the following chemicals: acidic compounds, titanium dioxide, mercuric oxide, metallic mercury, pesticides, mercury-mercuric compounds, mercuric containing sludge, ferric sulfate, polyoxyethylene, tridecyl ether.

Quantities varied from small to large amounts. Samples collected included (see attached diagram):

1. Sample taken from small pile of material 3' deep by 2' x 3'. Smell was acidic.

2. Sample from small tank 20' x 15' behind Building 13A.

3. Sample taken from drum behind Building 9, white powder, suspected as titanium dioxide.

4. Sample taken at weir at storm water outlet from plant.

(2)

5. Sample taken at pad behind Building 16. Metallic mercury drops collected from apron. Numerous particles observed.

6. Sample taken from small pile of powdery material (1 cuft) - suspected to be mercuric oxide.

7. Sample consists of bottle containing pesticide as noted on label. Bottle was noted as 1# of material contained therein.

8. Sample taken from concrete trough in front of Building 16. 2" deep, 30-35' long and 1 ft. wide. Liquid green in appearance with settled material - suspected to be mercury compounds.

9. Sample taken from mud pile 10' x 2' x ½' - suspected to be mercury residual from plant process.

10. Water sample above demolition site at Moonachie Road.

11. Sample of mud at creek above plant site at Moonachie Road.

12. Sample taken of water from Berrys Creek below plant site at bridge on Paterson Plan Road near Marios Sani-Can.

William Librizzi

William Librizzi
Chief
Emergency Response Branch

Attachment

(3)

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, NEW JERSEY

Name of Unit and Address:

[illegible] Corp. Demolition
ROVAC CONTR. | Ottillo
North Bergen N.J. | Paterson 271-4100

Number	Unit	Description of Samples
1 33601		sample taken from small pile of material 5' [illegible] by 2' x 3'. Smell was acidic

Person Assuming Responsibility for Sample:	Time	Date
W. Liberazzi		

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
33601	V. Frank V. Frank	5PM	6/7	F. Brezenski F. Brezenski	5PM	6/7	[illegible]

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

Voucher No.

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — **EDISON, NEW JERSEY**

Name of Unit and Address: Ventron Corp. Demolition
ROVAG Constr. / Castello
North Bergen Vattison 271-4106

Number	Unit	Description of Samples
2 33602		sample from small tank 20' x 15' behind Bldg 13A

Person Assuming Responsibility for Sample:	Time	Date
William Ellmore	2:50	

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
33602	V. Frank V. Frank	5PM	6/7	F. Brezenski F. Brezenski	5PM	6/7/74	[illegible]

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

R2.3 — Voucher No.

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, NEW JERSEY

Name of Unit and Address: Ventron Corp Demolition / ROVAC Construction / North Bergen — V. Ottilio / Paterson — 271-[illegible]

Number	Unit	Description of Samples
3 33603		sample taken from drum behind Bldg 9. white powder - suspected as Titanium dioxide

Person Assuming Responsibility for Sample:	Time	Date
William Librizzi	210	

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
33603	V. Frank H. Frank	5PM	6/7	F. Brezenski F. Brezenski	5PM	6/7/74	[illegible]

R2.3

Voucher No.

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, NEW JERSEY

Name of Unit and Address: Benson Corp Demolition

Number	Unit	Description of Samples
1		sample taken at well at storm water outlet from plant.
33604		

Person Assuming Responsibility for Sample: William Liburzo — Time: 2PM — Date:

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
33604	V. Frank V. Frank	5PM	6/7	F. BREZENSKI F. Brezenski	5PM	6/7/72	Lab. Analysis
Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

R2.3

Voucher No.

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II **EDISON, NEW JERSEY**

Name of Unit and Address: Ventron Corp.

Number	Unit	Description of Samples
5B 33605		Sample taken at pad behind Bldg. 16. Metallic mercury drops collected from apron. Numerous particles observed
5A 33606		Sample taken from small pile of powdery material (1 cu ft) – suspected to be mercuric oxide

Person Assuming Responsibility for Sample:	Time	Date
William Librizzi	5:20	

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
33605 33606	V. Frank V. Frank	5PM	6/7	F. Brezenski F. [illegible]	5PM	6/7/7[illegible]	[illegible signature]

R2.3

Voucher No.

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, NEW JERSEY

Name of Unit and Address: Ventron Corp Demolition

Number	Unit	Description of Samples
6 33609		Sample consists of bottle containing pesticide as noted on label. Bottle was noted as 1 # of material contained therein

Person Assuming Responsibility for Sample:	Time	Date
William Librizzi	2:2[illegible]	[illegible]

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
33609	O. Frank O. Frank	5PM	6/7	F. BREZENSKI F. Brezenski	5PM	6/7/7[illegible]	[illegible signature]

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

R2.3

Voucher No.

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, NEW JERSEY

Name of Unit and Address: Ventron Corp.

Number	Unit	Description of Samples
7 3360		Sample taken from concrete trough in front of bldg 16 2" deep, 30 - 35' long and 1 ft wide. liquid green in appearance with mud settled material — suspected to be mercury compounds.

Person Assuming Responsibility for Sample: William Libuzzi — Time: 3:40 — Date:

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
3360	O. Frank H Frank	5PM	6/7	F. Brzezinski F. Brzezinski	5PM	6/7/74	Lab. Analysis
Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

R2.3

Voucher No.

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, NEW JERSEY

Name of Unit and Address: Ventron Corp. Demolition.

Number	Unit	Description of Samples
8 33609		Sample taken from mud pile 10' x 2' x ½' suspected to be mercury residue from plant process.

Person Assuming Responsibility for Sample:	Time	Date
William Librizzi	2:25	

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
33609	W. Frank W. Frank	5PM	6/7	F. Brezenski F. Brezenski	5PM	6/7/72	Lab Anal

R2.3

Voucher No.

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, NEW JERSEY

Name of Unit and Address: Ventron Corp Demolition

Number	Unit	Description of Samples
9 33610		water sample above demolition site at Moonachie ~~Creek~~ Rd.

Person Assuming Responsibility for Sample: William Libizzy — Time: 3 — Date:

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
33610	O. Frank T. Frank	1PM	6/7	F. Brzenski F. Brzenski	5PM	6/7/82	
Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

R2.3

Voucher No.

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II — EDISON, NEW JERSEY

Name of Unit and Address: Ventron Corp.

Number	Unit	Description of Samples
10 33611		Sample of mud ~~of~~ at creek above plant on Moonachie Rd.

Person Assuming Responsibility for Sample:	Time	Date
William Librizzi	[illegible]	[illegible]

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
33611	U. Frank H. Frank	5PM	6/7	F. Brezenski F. Brezenski	5PM	6/7/72	[illegible]

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody

R2.3

Voucher No.

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF WATER PROGRAMS REGION II

EDISON, NEW JERSEY

Name of Unit and Address: Ventron Corp Demolition

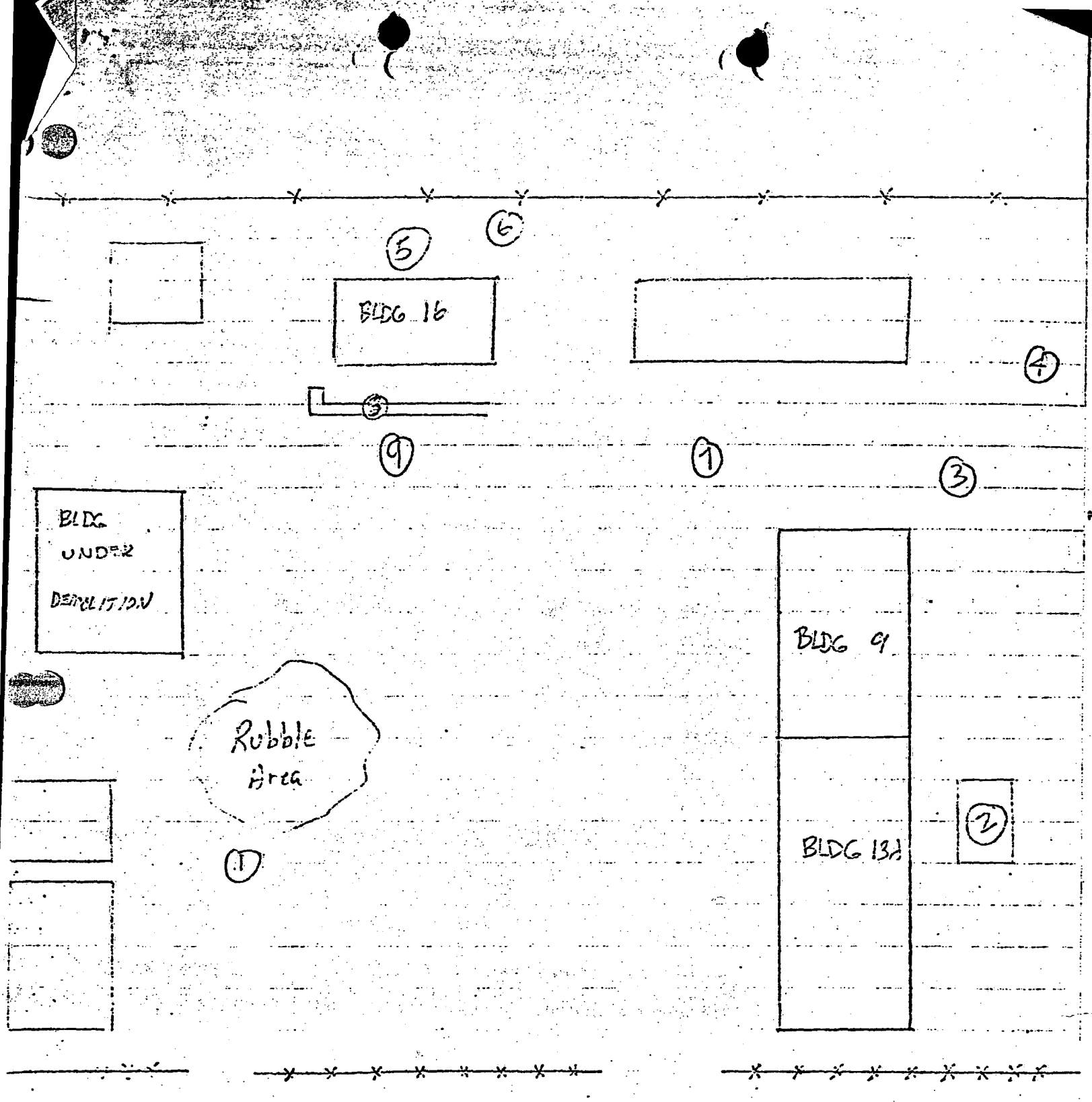
Number	Unit	Description of Samples
1 [illegible]		Sample taken of water from Berrys Creek below plant site at bridge on Paterson Plank Rd near Manos Sani-Can

Person Assuming Responsibility for Sample:	Time	Date
William [illegible]		

Number	Relinquished By:	Time	Date	Received By:	Time	Date	Reason for Change of Custody
[illegible]	U. Frank A. Frank	5PM	6/7	F. Brezenski F. Brezenski	5PM	6/7/74	[illegible]

R2.3

Voucher No.



VENTRON CHEMICAL
DEMOLITION SITE

3

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

REPLY TO ATTN OF: 2-SA-ER

DATE: June 12, 1974

SUBJECT: Chemical Spill, Ventron Corporation, Woodridge, New Jersey

TO: Record

On June 11, 1974, Joseph Lafornara, Uwe Frank, and the undersigned attended a meeting at the demolition operation, Ventron Corporation, Woodridge, New Jersey (reference June 13, 1974 memo to the Record, subject same). Attending the meeting were representatives from the New Jersey State Department of Environmental Protection, Rovic Construction (owners of the property), Ventron Corporation, Ottolio Demolition Company, and Gaess Environmental. State has directed operations to cease. After discussion of the problems associated with the presence of chemicals and demolition operation, it was agreed that:

(1) All drainage from the site during the operation will be diverted to an appropriately lined catch basin. The liquids and solids collected will be analyzed and properly disposed of. Analysis procedures by a contractor, hired by the owner, and disposal procedures will be approved by EPA/NJSDEP.

(2) Parameters to be analyzed in the above materials will be, at the very least, mercury, cadmium, zinc, asbestos, and oil.

(3) The owner will remove all drums, containers, flasks, asbestos in bulk, and other similar materials prior to restart of operations. State will make inspection.

(4) The owner will determine chemical infusion in the soil after demolition and prior to construction of the proposed parking lot warehouse facility. The particular concern here is the concentrations of mercury and mercury compounds in the soil.

(5) Based upon the determinations in (4) above, owner may be required to remove contaminated soils.

It was further agreed that New Jersey will send a letter to the property owner outlining the above agreements. EPA would provide technical assistance to New Jersey and to any testing company hired by the owner.

William Librizzi
Chief
Emergency Response Branch

2

EPA FORM 1320-6 (11-71)

2

Prepared May 1974

REPORT ON

SOILS INVESTIGATION
PARK PLACE EAST DEVELOPMENT
WOODRIDGE, NEW JERSEY

JOSEPH S. WARD, INC.

CONSULTING ENGINEERS

91 ROSELAND AVENUE
CALDWELL, NEW JERSEY 07006

Report on Soils Investigation
PARK PLACE EAST DEVELOPMENT
Woodridge, New Jersey

For

ROVIC CONSTRUCTION COMPANY, INC.

By

JOSEPH S. WARD INCORPORATED
Consulting Engineers
91 Roseland Avenue
Caldwell, New Jersey 07006

May 1974

Project No. C7403-3

JOSEPH S. WARD, INC.
CONSULTING GEOTECHNICAL ENGINEERS
P. O. BOX 91 • 91 ROSELAND AVENUE • CALDWELL, NEW JERSEY 07006

Mr. John Andrews, Vice President
ROVIC CONSTRUCTION COMPANY, INC.
911 Bergen Avenue
Jersey City, New Jersey 07306

May 1974

REPORT: Soils Investigation
Park Place East Development
Woodridge, New Jersey (C7403-3)

Dear John:

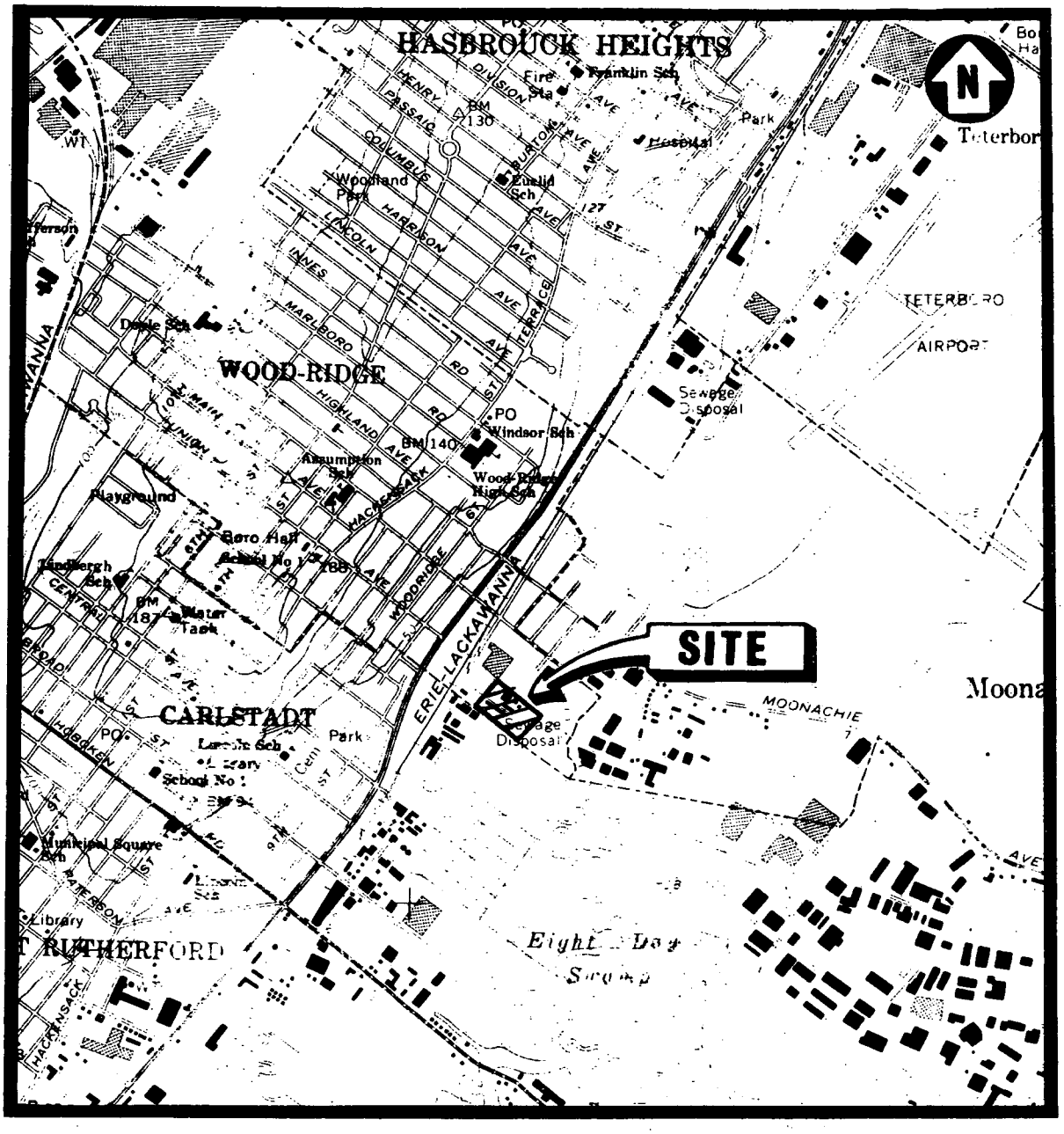
In accordance with our letter proposal dated 4 April 1974, we have performed a soils investigation for the referenced project, located as shown on the following Site Location Map, Figure 1. The purpose of this study was to determine and evaluate the subsoil conditions so as to recommend appropriate site preparation procedures, a foundation design, and allowable soil bearing values.

The proposed project is to consist of two separate single story structures: the westerly structure will be about 400 feet by 250 feet in plan dimension; the easterly structure will be about 250 feet by 250 feet. The structures will be situated as shown on the Boring and Test Pit Location Plan, Plate 1.

The site presently contains a number of single and two story structures for the Ventron Chemical Company, which will vacate the area for the new development. The ground surface is generally uniform at about elevation +6± based on the U.S.C. and G.S. datum. The location of the existing structures is also shown on Plate 1.

The proposed structures will be at truck dock height, that is, about 4 feet above the existing grade, about elevation +10±. The westerly structure is tentatively being designed to accommodate a 500 psf live loading, while the easterly building is being considered for a 400 psf live loading.

Our study consisted of: the resident inspection of the advancement of four (4) borings and fifteen (15) test pits located as shown on Plate 1; laboratory testing; analysis; and the preparation of this report. The locations of the borings



SCALE: 1"=2000'±

MAP SOURCE: BASE MAP WAS ADAPTED FROM U. S. GEOLOGICAL SURVEY MAP OF WEEHAWKEN, N. J. QUADRANGLE, 7.5 MINUTE SERIES, 1967. (BASE MAP MAY NOT REFLECT RECENT CARTOGRAPHIC CHANGES.)

FIGURE 1. SITE LOCATION MAP

and test pits are shown on Plate 1, and the logs are presented in Appendix A.

Our study indicated the following subsoils:

Fill, consisting primarily of clayey granular materials with Shale fragments was found to overlie the entire site. This stratum ranges in thickness from about 2 to 3½ feet, and was in a dense state.

Black Organic Silt with roots, was encountered immediately below the fill. This material is in a stiff state and was found to be 6 inches to 12 inches in thickness.

Gray brown medium to fine Sand, underlies the organic soil. This material is in a compact state of density, and varies in thickness from about 5 feet to as much as 19 feet.

Gray to red-brown varved Clay & Silt with occasional fine sand layers was the predominant stratum at the site. This layer varied from a firm consistency in its upper portions to very soft in its lower depths. The thickness of this stratum varied from 62 feet (Borings B-1 and B-3) to as much as 146 feet (Boring U/D-1).

Red-brown silty Sand was the final layer encountered, and all borings terminated in this material, which was in a compact to very compact state.

Bedrock was not encountered in any of the borings and it is expected to be in the order of 200 feet or more beneath the surface, based on rock contours of the area in our files. Groundwater as encountered in the test pits ranged from being at the surface to 3 feet below the surface.

EVALUATION

The borings and test pits performed provided sufficient information to recommend a foundation design and allowable soil bearing values. However, as stated in our letter to you dated 4 April 1974, the total building coverage, i.e. in the order of 160,000 sq. ft., dictates that a minimum of six borings be advanced, depending on the variation in major subsoil layers. As you requested, our study was to consist of a total of only four borings.

The surface fill material, although apparently placed without formal compaction, has densified over the years due to vehicular activity at the site. Considering the fill in isolation, it is a relatively good foundation material. However, immediately underlying this soil is a thin layer of black

Organic Silt which is considered to be compressible under concentrated footing loads. Therefore, building footings must not be placed in close proximity to this organic soil. Floor slab loads (dead load plus live load) over the organic soil will result in unimportant subsidence.

The gray sands beneath the organic soil are compact and relatively incompressible and will not contribute to building settlement.

The deep, thick, soft varved clays extending to depths as much as 170 feet beneath the surface are compressible and will cause settlement of the area during filling to grade (from elevation +6± to elevation +10±). In addition, the imposition of the building dead load and the live loading will result in post-construction settlement of the structure.

A settlement analysis was performed considering the weight of 4± feet of fill, including the new floor (480± psf), the dead load of the structure (40± psf), and the reduced average live load within the buildings of 400 psf in the westerly structure and 300 psf in the easterly structure. Our analysis indicated the following range of total settlements beneath the proposed structures.

Westerly Building

Center of West Edge	Center of Building	Center of East Edge
0 to 3"±	3" to 5"	3" to 5"

Easterly Building

Center of West Edge	Center of Building	Center of East Edge
3" to 5"	5" to 8"	3" to 7"

Since no boring data was obtained at the most westerly end of the westerly building, the settlement at this point is estimated based on the assumption that the thickness of compressible varved clays decreases in this direction.

Since the new fill will constitute about 50% of the total new load, about 25% of the total settlement is expected to occur during fill placement. As a result, the anticipated post-construction differential settlement that can be expected in the easterly structure will range from ¼" to ½" in 25 feet,

which is considered tolerable for this type of structure. Differential settlements in the westerly structure are difficult to predict due to the absence of borings. However, from the data at hand, the differential settlement after construction is not expected to exceed those predicted for the easterly structure.

In light of the limited boring coverage, monitoring of the settlement that occurs during the placement of new fill will be imperative with the provision for numerous observation points at selected locations throughout the building areas, so as to verify the predicted settlements. If the settlements recorded in the non-boring areas are significantly different from those estimated, it may be necessary to advance additional borings to ascertain the reason.

The anticipated post-construction differential settlements, although considered tolerable for the structure, may result in some cracking of masonry walls especially in the easterly building. To reduce this post-construction differential movement and the resultant cracking, it would be necessary to surcharge the easterly building area with about 4 feet of additional fill for a period of one to two months.

Based on the boring data and our testing and analysis, it is our judgment that both structures may be supported over the varved clays without the need for a piled foundation and without the need for surcharge or preloading prior to construction. However, this will not be finally established until the building fill is in and settlements are measured over a period of at least two months. Settlement plate readings indicating significantly greater settlements than anticipated, could change this evaluation, at least as far as the surcharge scheme is concerned. A piled foundation is not expected.

RECOMMENDATIONS

Site Preparation

After the demolition of the existing structures is completed, and the debris is removed, we recommend that the proposed building areas be proof-rolled with at least 2 passes of a vibrating drum roller. Any soft, wet areas should be gouged out and replaced with clean fill as necessary.

New fill to raise grade should be a clean granular material placed in 12 inch or thinner layers, and should be compacted to at least 95% of the maximum modified density, determined in accordance with ASTM Test Designation D1557-72.

After proof-rolling the existing surface, and prior to placing the controlled fill, settlement plates should be installed on the surface to monitor the settlement during fill placement. At least 15 plates should be installed on roughly a 150-foot grid throughout the building areas. Readings on the settlement plate riser pipes should be recorded at least twice weekly during fill placement and weekly thereafter for as long as possible. It is recommended that a licensed surveyor or the soils engineer, in conjunction with your personnel, perform the surveys to ensure accurate results. It is imperative that a fixed bench mark, e.g. a bridge pier, a pipe driven to bedrock, etc., be used or established for the readings. This bench mark should be located at least 200 feet west of the fill area, since all land areas east of that point are considered to be undergoing some subsidence. The plate readings should be forwarded to our office periodically for evaluation.

Foundations

The proposed structures may be founded on a spread footing foundation bearing in either the controlled fill immediately below floor level, or in the natural sand soils below the shallow thin layer of organic material, at a design bearing value of 2 TSF (net). Since the structure will be at truck dock height, the exterior footings must be placed 3 feet below finished outside grade for frost protection, or at about elevation +3 (assuming the finished ground surface will be about elevation +6, the present surface elevation). This level will be at or slightly above the thin organic layer observed in the test pits. In light of the compressibility of the organic soils under concentrated footing loads, all exterior footings must bypass these organic materials to found in the compact gray sand about 3½ to 4 feet below the present surface. Dewatering by sumps and pumps will be necessary outside these footing areas before excavation, so as to prevent softening of these natural fine sand soils due to water inflow.

Interior footings may be founded in the controlled fill a minimum distance below the floor slab, which will be at elevation +10±. The interior footings will therefore be founded at about elevation +8, or about 5 feet above the thin organic layer. A minimum of 4 feet of fill (compacted fill and existing fill) should underlie all interior footings. The floor slab may be placed on grade.

It is further recommended that the proof-rolling and placement of controlled fill be inspected full time by a soils engineer to verify adequate compaction, as well as to oversee the settlement plate installation and readings.

We trust that the information contained herein will enable you to proceed with the project.

Respectfully submitted,

JOSEPH S. WARD, INC.

Thomas J. Scheil, P.E.

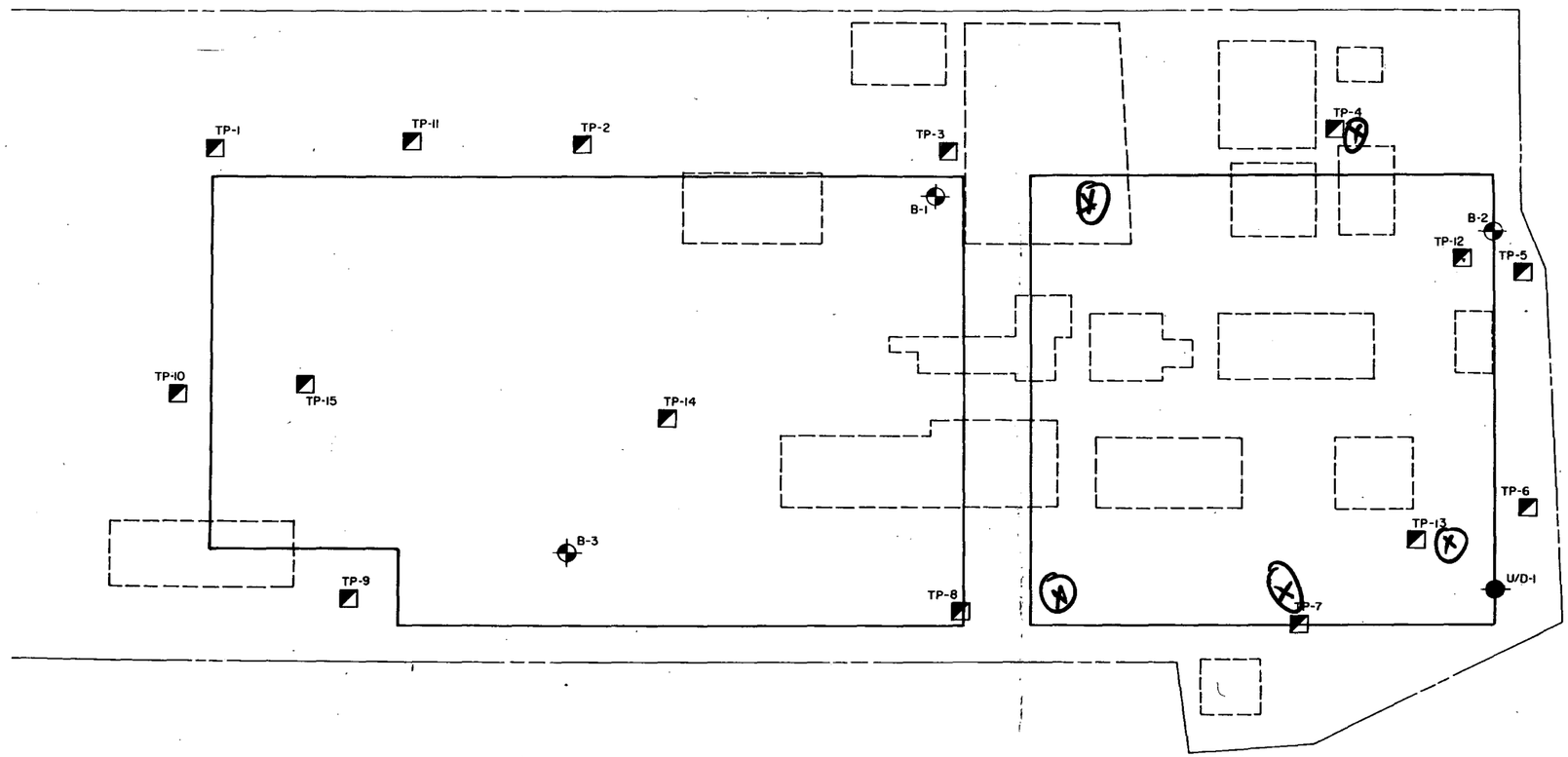
TJS/jrs

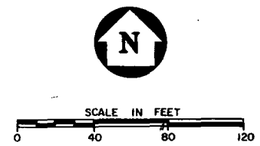
Submitted: 6 copies

cc: Rutenberg & Kolaronda
Att: Mr. Leo Rutenberg

C7403-3

DRAWING PLATE





GENERAL NOTES

1. THESE DRAWINGS ARE PART OF JOSEPH S. WARD, INC. REPORT NO. C7403-3 AND SHOULD BE READ TOGETHER WITH THE REPORT FOR COMPLETE EVALUATION.
2. GENERAL LAYOUT WAS OBTAINED FROM A DRAWING PREPARED BY ROVIC CONSTRUCTION CO., INC., ENTITLED "PARK PLACE EAST DEVELOPMENT, WOODRIDGE, NEW JERSEY", DRAWING NO. A1-3574, DATED 3/5/74.
3. BORING AND TEST PIT LOCATIONS WERE DETERMINED IN THE FIELD BY JOSEPH S. WARD, INC. DURING THE FIELD OPERATIONS.
4. BORINGS BY WARREN GEORGE, INC. WERE INSPECTED BY JOSEPH S. WARD, INC. DURING MARCH AND APRIL 1974.
5. TEST PITS BY GEORGE UNDERHILL CONST. ENT. INC. WERE INSPECTED BY JOSEPH S. WARD, INC. ON 13 MARCH 1974.

LEGEND

- 2-1/2 INCH DIAMETER EXPLORATORY BORING
- 4-INCH DIAMETER UNDISTURBED SAMPLE BORING
- TEST PIT
- PROPERTY LINE
- PROPOSED STRUCTURE
- EXISTING STRUCTURE

LOCATION PLAN

PARK PLACE EAST DEVELOPMENT
WOODRIDGE, NEW JERSEY

DESIGNED: TJS	JOSEPH S. WARD, INC. CONSULTING ENGINEERS 91 ROSELAND AVE. CALDWELL, NEW JERSEY	SCALE: AS SHOWN	
DRAWN: HWB		DATE: 14 MAY 74	
CHECKED: TJS		JOB NO.: C7403-3	
SUPERVISED: TJS		PLATE NO.: 1	

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 12:45 PM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 12:55 PM TEST PIT NO. 11

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 2' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL		REMARKS
0	dense	moist	FILL(Red brown coarse to fine SAND, little (+) Clayey Silt)		Water @ 2'0"
1					
2					
3		wet		3'0"	
	stiff	moist	Black Organic SILT, with Roots	3'6"	
	dense	moist	Gray brown medium to fine SAND, trace Silt	5'0"	
5			BOTTOM OF PIT @ 5'0"		
10					
15					
20					

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 1:05 PM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 1:15 PM TEST PIT NO. 12

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 3' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL	REMARKS
0	dense	moist	FILL(Black Cinder, Brick, Glass, and coarse to fine SAND, little Silt)	
			3'0"	
	stiff	moist	Black Organic SILT, trace fine Sand, with Roots 3'6"	
5	dense	moist	Gray medium to fine SAND, little Silt 5'0"	
			BOTTOM OF PIT @ 5'0"	
10				
15				
20				

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 1:30 PM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 1:45 PM TEST PIT NO. 13

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 2½' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL	REMARKS
0	dense	moist	FILL (Red brown coarse to fine SAND, little Clayey Silt, fragments of Shale	
			2'6"	Water @ 2'6"
	stiff	moist	Black Organic SILT, trace fine Sand, with Roots 3'0"	
5	dense	moist	Green brown medium to fine SAND, little Silt 6'0"	
			BOTTOM OF PIT @ 6'0"	
10				
15				
20				

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 2:05 PM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 2:20 PM TEST PIT NO. 14

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 2'9" INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL	REMARKS
0	dense	moist	FILL(Red brown coarse to fine SAND, little Clayey Silt, with Brick, Cinder) 3'0"	
	stiff	moist	Black Organic SILT, with Roots 4'0"	
5	dense	moist	Gray brown medium to fine SAND, little Silt 5'6"	
			BOTTOM OF PIT @ 5'6"	
10				
15				
20				

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 2:35 PM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 2:50 PM TEST PIT NO. 15

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 3' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL	REMARKS
0	dense	moist	FILL(Red brown coarse to fine SAND, little Clayey Silt, fragments of Shale	
			2'6"	
	stiff	moist	Black Organic SILT, with Roots	
			3'0"	
5	dense	moist	Gray brown medium to fine SAND, little Silt	
			6'0"	
			BOTTOM OF PIT @ 6'0"	
10				
15				
20				

APPENDIX B

SUMMARY OF LABORATORY TESTS

PROJECT NUMBER: C7403-3
PROJECT: Woodridge, New Jersey
CLIENT: Rovic Construction Company, Inc.

JOSEPH S. WARD INC.
CONSULTING ENGINEERS
CALDWELL, N.J.

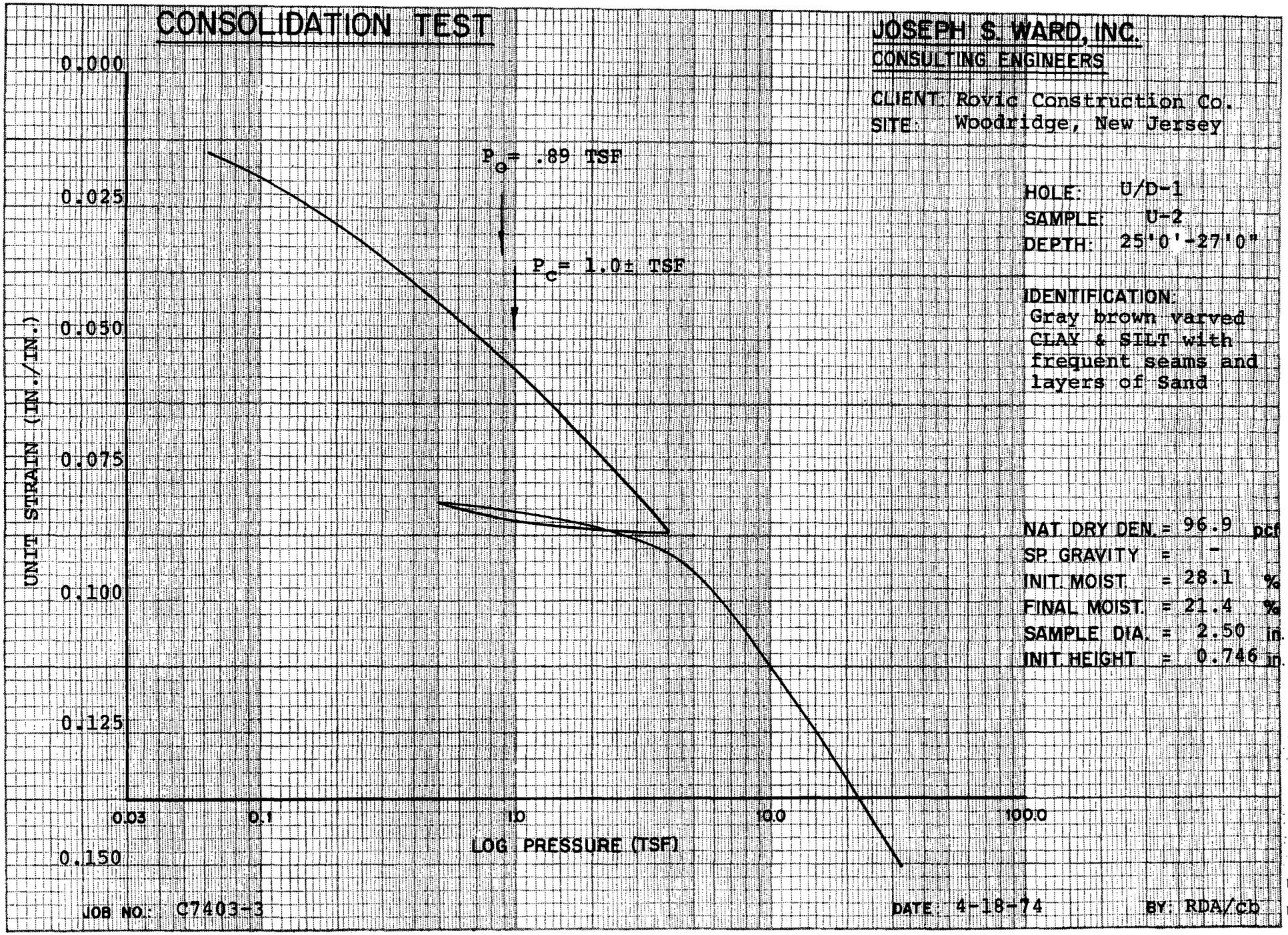
BORING & SAMPLE NUMBER	DEPTH	CLASSIFICATION	NATURAL WATER CONTENT PERCENT	ATTERBERG LIMITS		UNCONFINED COMPRESSION		UNIT DRY WEIGHT LB/CU FT	GRAIN SIZE	CONSOLI-DATION	TRIAXIAL	
				LIQUID LIMIT	PLASTIC LIMIT	STRESS TSF	STRAIN (%)					
U/D-1 U-2	25'0"-27'0"	Gray brown varved CLAY & SILT with seams of Sand	24.7	27	18					*		(1 hr test)
U-3	30'0"-32'0"	Gray brown CLAY & SILT	29.8	27	18							
U-4	50'0"-52'0"	Gray brown varved Silty CLAY	37.4	37	21					*		(1 hr test)
U-5	70'0"-72'0"	Gray brown varved Silty CLAY	33.6	33	21							
U-7	95'0"-97'0"	Gray brown varved Silty CLAY	36.9	39	23					*		(1 hr test)
U-8	115'0"-117'0"	Gray brown varved Silty CLAY	32.8	41	22							(24 hr test)
U-9	134'0"-136'0"	Gray brown varved Silty CLAY	38.2	47	24					*		(1 hr test)
U-10	150'0"-152'0"	Gray varved CLAY & SILT	51.6	63	28							

*SEE TEST CURVES

B-1

L-50-72

CONSOLIDATION TEST



JOSEPH S. WARD, INC.
CONSULTING ENGINEERS

CLIENT: Rovic Construction Co.
SITE: Woodridge, New Jersey

HOLE: U/D-1
SAMPLE: U-2
DEPTH: 25'0"-27'0"

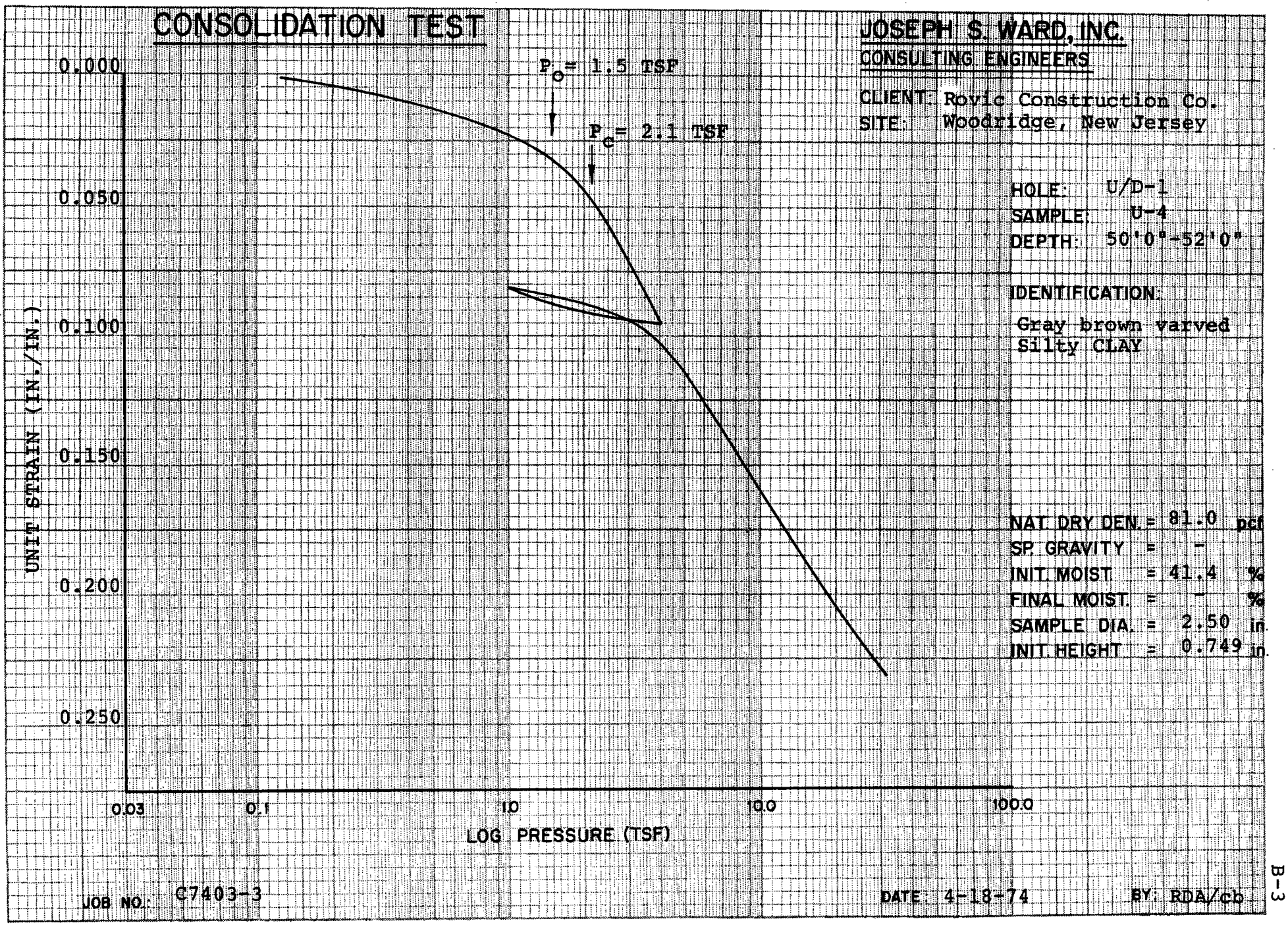
IDENTIFICATION:
Gray brown varved CLAY & SILT with frequent seams and layers of Sand

NAT. DRY DEN.	= 96.9	pcf
SP. GRAVITY	= -	
INIT. MOIST.	= 28.1	%
FINAL MOIST.	= 21.4	%
SAMPLE DIA.	= 2.50	in.
INIT. HEIGHT	= 0.746	in.

JOB NO: C7403-3

DATE: 4-18-74 BY: RDA/cb

CONSOLIDATION TEST



JOSEPH S. WARD, INC.
CONSULTING ENGINEERS

CLIENT: Rovic Construction Co.
SITE: Woodridge, New Jersey

HOLE: U/D-1
SAMPLE: U-4
DEPTH: 50'0"-52'0"

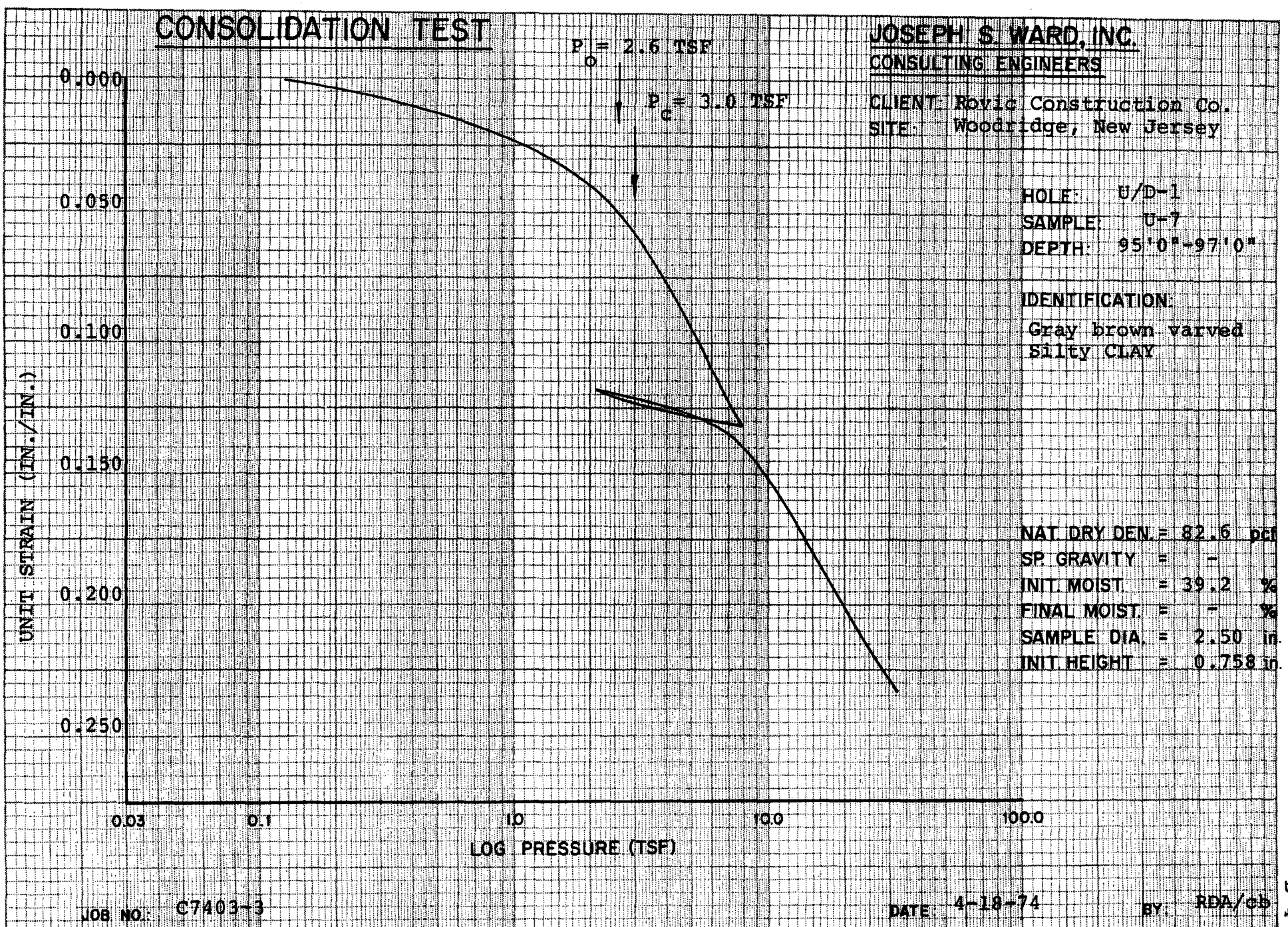
IDENTIFICATION:
Gray brown varved Silty CLAY

NAT. DRY DEN.	=	81.0 pcf
SP. GRAVITY	=	-
INIT. MOIST.	=	41.4 %
FINAL MOIST.	=	- %
SAMPLE DIA.	=	2.50 in.
INIT. HEIGHT	=	0.749 in.

JOB NO: C7403-3

DATE: 4-18-74 BY: RDA/cb

CONSOLIDATION TEST



JOSEPH S. WARD, INC.
CONSULTING ENGINEERS

CLIENT: Rovic Construction Co.
SITE: Woodridge, New Jersey

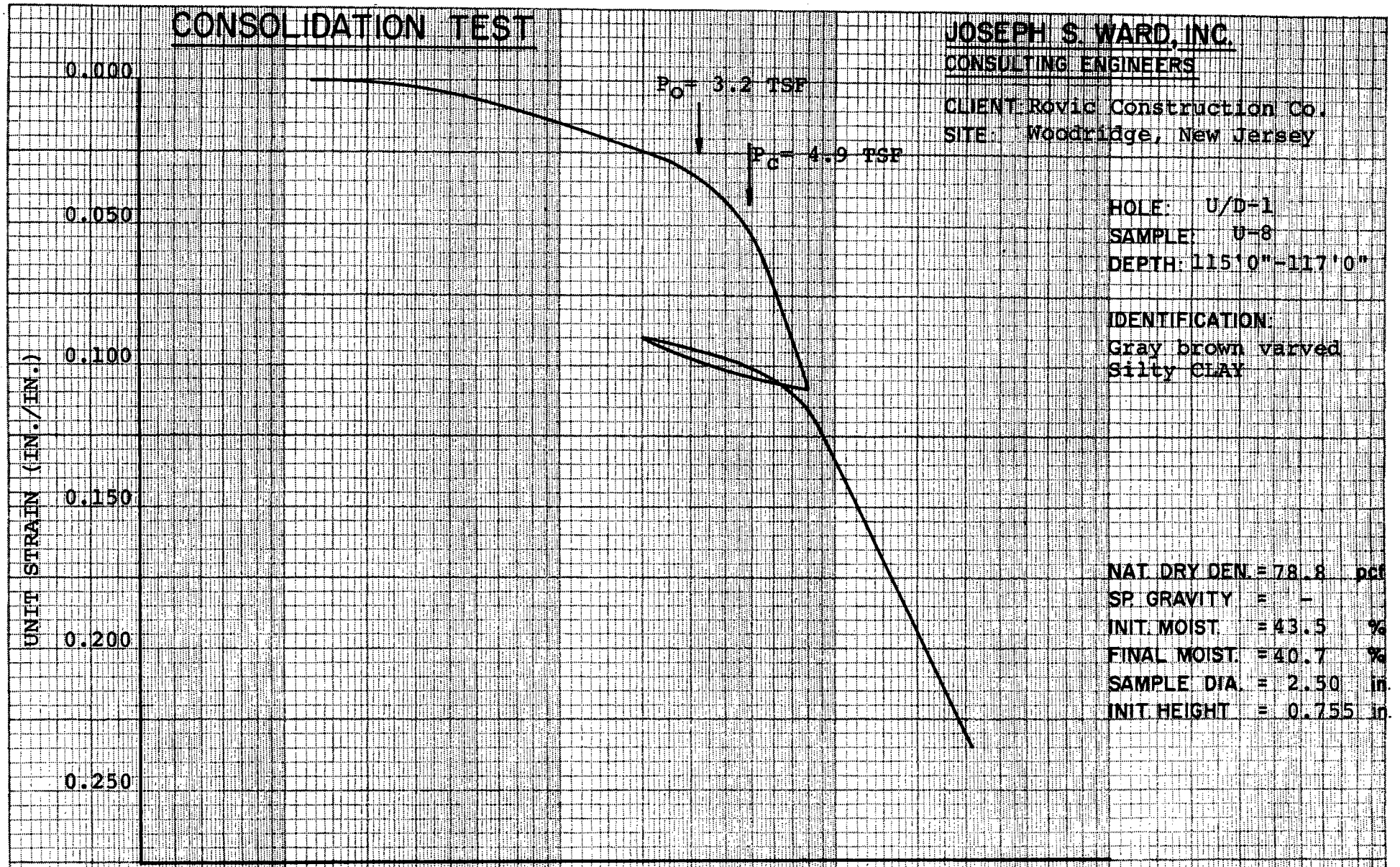
HOLE: U/D-1
SAMPLE: U-7
DEPTH: 95'0"-97'0"

IDENTIFICATION:
Gray brown varved Silty CLAY

NAT. DRY DEN.	= 82.6	pcf
SP. GRAVITY	= -	
INIT. MOIST.	= 39.2	%
FINAL MOIST.	= -	%
SAMPLE DIA.	= 2.50	in.
INIT. HEIGHT	= 0.758	in.

JOB NO: C7403-3 DATE: 4-18-74 BY: RDA/cb

CONSOLIDATION TEST



JOSEPH S. WARD, INC.
CONSULTING ENGINEERS

CLIENT: Rovic Construction Co.
SITE: Woodridge, New Jersey

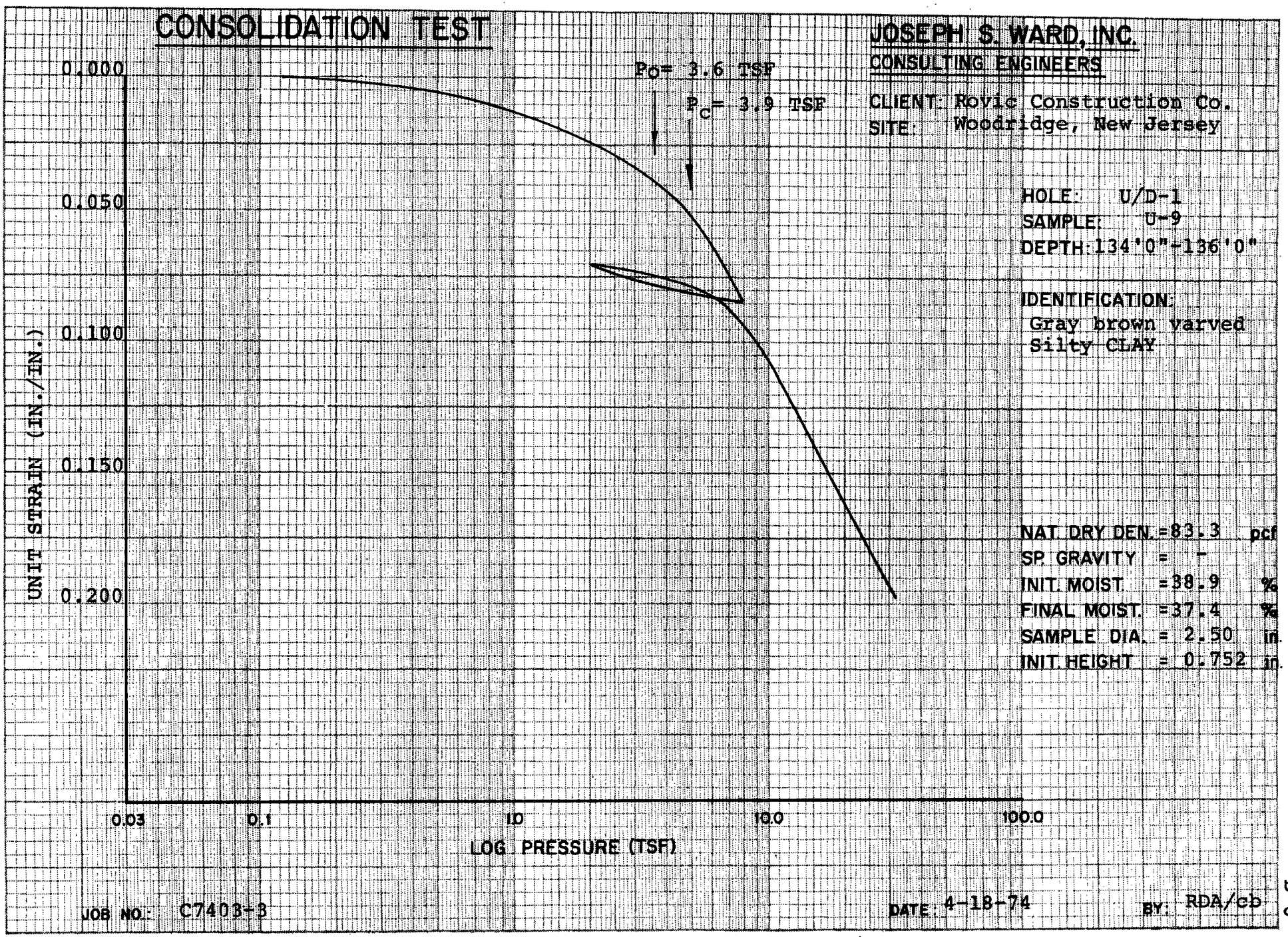
HOLE: U/D-1
SAMPLE: U-8
DEPTH: 115'0"-117'0"

IDENTIFICATION:
Gray brown varved
Silty CLAY

NAT. DRY DEN.	= 78.8	pcf
SP. GRAVITY	= –	
INIT. MOIST.	= 43.5	%
FINAL MOIST.	= 40.7	%
SAMPLE DIA.	= 2.50	in.
INIT. HEIGHT	= 0.755	in.

JOB NO.: C7403-3 DATE: 4-29-74 BY: RDA/jrs

CONSOLIDATION TEST



JOSEPH S. WARD, INC.
CONSULTING ENGINEERS

CLIENT: Rovic Construction Co.
SITE: Woodridge, New Jersey

HOLE: U/D-1
SAMPLE: U-9
DEPTH: 134'0"-136'0"

IDENTIFICATION:
Gray brown varved
Silty CLAY

NAT. DRY DEN.	=83.3	pcf
SP. GRAVITY	= -	
INIT. MOIST.	=38.9	%
FINAL MOIST.	=37.4	%
SAMPLE DIA.	= 2.50	in.
INIT. HEIGHT	= 0.752	in.

JOB NO.: C7403-3
DATE: 4-18-74
BY: RDA/cb

APPENDIX A

JOSEPH S. WARD INC. CONSULTING ENGINEERS

TEST BORING LOG

BORING NO.: B-1

PROJECT	Park Place East, Woodridge, New Jersey
CLIENT	Rovic Construction Company
BORING CONTRACTOR	Warren George, Inc.
SHEET NO.:	1 OF 2
JOB NO.:	C7403-3
ELEVATION:	+6.2'±
DATUM:	Site
DATE START:	3/13/74
DATE FINISHED:	3/15/74
DRILLER:	H. Chandler
INSPECTOR:	R. Shine

GROUND WATER DATE	TIME	DEPTH	CASING		CAS.	SAMP.	CORE	TUBE
				TYPE	Pipe	S.S.		
				DIA.	2½"	2"		
				WT.	300#	140#		
				FALL	24"	30"		

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	IDENTIFICATION	REMARKS
1	8	S-1	26 35 18		FILL(Sand, Silt, Gravel, Cinders, Bricks, etc.)	
2	4				2'0"	
3	4	S-2A	4 3 4		Gr br cfS, 1.0$, t.Roots	
4	3	S-2B	8 7			
5	3		9 9		Gr br cfS, 1.$	
6	3		12 7			
7	4	S-4	8 9		Br cfS, 1.(-)$	
8	11		10 6			
9	11		6 7		do	
10	14		9 8			
11	12	S-6	9 9		do	
12	12		12		Brown coarse to fine SAND, little Silt	
13	14					
14	15					
15	16					
16	12	S-7	6 8		do	
17	14		8 11			
18	16					
19	16					
20	14				20'0"	
21	20	S-8	3 4 4 5		Gr C&$, w.lyr cfS, 1.$	
22	24					
23	23					
24	22					
25	21					
26	18	S-9	2 4		Rd br & gr vvd C&$, w.sms fS	
27	21		3 4			
28	19					
29	18					
30	15					
31	29	S-10	0 0		do	
32	21		1 1			
33	18					
34	16					
35	16					
36	34	S-11	1 2		Gr br vvd C&$, w.sm fS	
37	27		2 2			
38	26				Gray brown varved CLAY & SILT, with seams fine Sand	
39	14					
40	21					
41	41	S-12	1 0		do	
42	32		2 2			
43	29					
44	30					
45	32					
46		S-13	1 2		do	
47			1 2			
48						
49						
50			1			
51		S-14	1 1		Gr br vvd C&S, w.sm fS	
52			2			

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	IDENTIFICATION BORING NO. B-1 CONTINUED C7403-3	REMARKS
53						
54						
55			2			
56		S-15	1		Gr br vvd C&$	
57			2 2		Gray brown varved CLAY & SILT with seams fine Sand	
58						
59						
60						
61			WOH			
62		S-16	WOH 2		do w.sm fS	
63			3			
64						
65						
66		S-17	1 2		Gr br vvd C&S	
67			1 2			
68						
69					69'0"	
70						
71		S-18	1 3		Rd br vvd C&$, w.freq.sms fS t.(-)fG	
72			3 4			
73						
74						
75						
76		S-19	4 4		Rd br vvd Cy$, w.sm fS	
77			3 6		Red brown varved Clayey SILT, with seams fine Sand	
78						
79						
80						
81		S-20	4 3		do	
82			7 13		82'0"	
83						
84						
85						
86		S-21	9 10		Rd br & gr mfS, 1.$	
87			13 14		Red brown coarse to fine SAND, little Silt	
88						
89						
90						
91		S-22	8 11		Rd br cfS, 1.$	
92			13 15			
93						
94						
95						
96		S-23	11 16		do	
97			13 17			
98						
99						
100						
101		S-24 L	16 11 9			
102			11		102'0"	
103					END OF BORING @ 102'0"	
104						
105						
106						
107						
108						
109						
110						

JOSEPH S. WARD, INC. CONSULTING ENGINEERS

TEST BORING LOG

BORING NO.: B-2

PROJECT: Park Place East, Woodridge, New Jersey
CLIENT: Rovic Construction Company
BORING CONTRACTOR: Warren George, Inc.
SHEET NO.: 1 OF 3
JOB NO.: C7403-3
ELEVATION: +6.2'±
DATUM: Site
DATE START: 3/26/74
DATE FINISHED: 3/26/74
DRILLER: B. Muh
INSPECTOR: R. Shine

GROUND WATER					CAS.	SAMP	CORE	TUBE
DATE	TIME	DEPTH	CASING	TYPE	Mud	S.S.		
3/26/74	-	3'6"	-	DIA.		2"		
				WT.		140#		
				FALL		30"		

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	IDENTIFICATION	REMARKS
1		S-1	25 15 7 12		Bk br cfS, l.$, a.cndr, brk FILL(Sand, Silt, Gravel, Cinders, Bricks, etc.)	
2						
3		S-2	5 5 4 5		Bk mfS, a.O$, t.Veg	
4						
5		S-3A	5 8		do 5'0"	
6		S-3B	12 14 8		Gr br cfS, l.$, t.Veg	
7		S-4	11 17 13 7		Br cfS, l.$ Brown coarse to fine SAND, little Silt	
8						
9		S-5	16 19 21 8		do	
10	M					
11	U	S-6A	15 15		Gr br cfS, l.$ 11'0"	
12	D	S-6B	11		Gr C&$, a.cfS	
13						
14						
15						
16		S-7	6 9 12 7		Gr C&$, w.lyrs cfS Gray CLAY & SILT, with layers of coarse to fine Sand	
17						
18						
19						
20						
21		S-8	9 5 5 3		Gr C&S, w.lyr cfS	
22						
23						
24						
25					25'0"	
26		S-9	4 2 1 3		Gr vvd C&S, w.lyrs cfS, t.$ Gray brown varved CLAY & SILT, with seams fine Sand	
27						
28						
29						
30						
31		S-10 L	2 1 1 1			
32						
33						
34	M					
35	U					
36	D	S-11	2 2 4 9		do gr br	
37						
38						
39						
40						
41		S-12	W O R		Gr br vvd C&$, w.occ thn sm fS	
42						
43						
44						
45						
46		S-13	W O R		do	
47						
48						
49						
50						
51		S-14	4 3 3 4		Rd br lyrs C&$, w.occ thn sm fS	
52						

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	IDENTIFICATION BORING NO. B-2 CONTINUED C7403-3	REMARKS
53						
54						
55			W			
56		S-15	O R		Gr br vvd C&$, w.freq.sm fS	
57					Gray brown varved CLAY & SILT, with seams fine Sand	
58						
59						
60			1			
61		S-16	0 1		do	
62	M		0			
63	U					
64	D					
65						
66		S-17	1 0 1		do	
67			0			
68						
69						
70						
71		S-18	1 0 0 1		do	
72						
73						
74						
75						
76		S-19	1 0 1 1		Gr br vvd C&$, w.occ thn sm fS	
77						
78						
79						
80			W			
81		S-20	O R		do	
82						
83					Gray brown varved CLAY & SILT with occasional thin seams fine Sand	
84						
85			1			
86		S-21	0 0 1		do	
87						
88						
89	M					
90	U					
91	D	S-22	1 0 1= 0		do	
92						
93						
94						
95			0			
96		S-23	0 0 1		do	
97						
98						
99						
100						
101			0			
102		S-24	1 0 0		Gr vvd C&S, w.occ sms fS	
103						
104						
105			W			
106		S-25	O R		do	
107						
108						
109						
110					110'0"	

JOSEPH S. WARD INC.
CONSULTING ENGINEERS

TEST BORING LOG

BORING NO. B-2

PROJECT Park Place East, Woodridge, New Jersey

SHEET NO. 3 OF 3

CLIENT Rovic Construction Company

JOB NO. C7403-3

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	IDENTIFICATION	REMARKS
111		S-26	W O R		Rd br vvd C&$, w.occ sms fS Gray and red brown varved CLAY & SILT with occasional seams fine Sand	
116		S-27	W O R		do	
121		S-28	0 1 0 1		do	
125		S-29	24 28 45 69		125'0" Rd br mfS, 1.$, w.occ lyr gr C&$ 1.mf$	
131		S-30	38 48 59 56		Rd br mfS, 1.$ Red brown medium to fine SAND, little Silt	
136		S-31	48 78 60 63		do	
141		S-32	35 57 59 66		do 142'0"	
142					END OF BORING @ 142'0"	

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	IDENTIFICATION	REMARKS

JOSEPH S. WARD, INC. CONSULTING ENGINEERS

TEST BORING LOG

BORING NO.: B-3

PROJECT: Park Place East, Woodridge, New Jersey
CLIENT: Rovic Construction Company
BORING CONTRACTOR: Warren George, Inc.
GROUND WATER

DATE	TIME	DEPTH	CASING

	CAS.	SAMP.	CORE	TUBE
TYPE	Mud	S.S.		
DIA.		2"		
WT.		140#		
FALL		30"		

SHEET NO.: 1 OF 2
JOB NO.: C7403-3
ELEVATION: +6.2'±
DATUM: Site
DATE START: 4/05/74
DATE FINISHED: 4/08/74
DRILLER: M. Caprioni
INSPECTOR: R. Shine

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	IDENTIFICATION	REMARKS
1		S-1	14 16 7 8		FILL(Sand, Cinders, Bricks, Gravel, etc.) 2'0"	
2			2		Black Organic SILT 3'0"	
3		S-2	4 8		Gr & gn mfS, l.$	
4			22 17			
5		S-3	20 20		Gray brown medium to fine SAND, little Silt	
6			28 12			
7		S-4	10 11		Gr br mfS, l.$, O	
8			8 5		8'0"	
9		S-5	7 5		Gr br C&$, t.(+)mfS, l.$	
10			7 6			
11		S-6	5 13		Gr br C&$, s.mfS, l.$	
12			12			
13						
14						
15						
16		S-7	7 11 19 20		Gr br vvd C&$, w.lyr mfS, l.$	
17					Gray brown varved CLAY & SILT with seams medium to fine Sand, little Silt	
18						
19						
20						
21		S-8	6 8 10 12		do	
22						
23						
24						
25						
26		S-9	2 2 2 4		Gr br vvd C&$, w.sm mfS, l.$	
27						
28						
29						
30						
31		S-10	3 3 3 4		Gr br vvd C&$	
32						
33	M					
34	U					
35	D					
36		S-11	2 2 4 4		Gr br vvd C&$, w.sms mfS, l.$	
37					Gray brown varved CLAY & SILT, with seams medium to fine Sand, little Silt	
38						
39						
40						
41		S-12	1 2 1 2		do	
42						
43						
44						
45						
46						
47		S-13	2 3 2 2		do	
48					48'0"	
49						
50			W			
51		S-14	O H		Rd br vvd C&$, w.occ thn sms mfS, l.$	
52						
53						
54						
55			W			
56		S-15	O H		Rd br vvd C&$, w.sms mfS, l.$	
57						
58					Red brown varved CLAY & SILT, with seams medium to fine Sand, little Silt	
59						
60			W			
61		S-16	O H		do	
62						
63						
64						
65			8			
66		S-17	14 16		Rd br & gr vvd C&S, w.sms mfS, l.$	
67			2			
68						
69						
70					70'0"	
71		S-18	12 14 15 20		Rd br mfS, l.(+)$	
72						
73						
74						
75						
76		S-19	7 10 21 22			
77						
78					Red brown medium to fine SAND, little Silt	
79						
80			10			
81		S-20	15 17 21		do	
82						
83						
84						
85			16			
86		S-21	23 25 24		do	
87					87'0"	
88					END OF BORING @ 87'0"	
89						
90						
91						
92						
93						
94						
95						
96						
97						
98						
99						
100						
101						
102						
103						
104						
105						
106						
107						
108						
109						
110						

BORING NO. B-3 CONTINUED C7403-3

REMARKS

JOSEPH S. WARD, INC. CONSULTING ENGINEERS

TEST BORING LOG

BORING NO.: U/D-1

PROJECT: Park Place East, Woodridge, New Jersey
CLIENT: Rovic Construction Company
BORING CONTRACTOR: Warren George, Inc.
SHEET NO.: 1 OF 4
JOB NO.: C7403-3
ELEVATION: +6.2'±
DATUM: Site
DATE START: 4/05/74
DATE FINISHED: 4/11/74
DRILLER: D. Owens
INSPECTOR: R. Shine

GROUND WATER					CAS.	SAMP.	CORE	TUBE
DATE	TIME	DEPTH	CASING	TYPE	MUD	S.S.		Shelby
4/11/74	1345	1'8"	Mud	DIA.		2"		
				WT.		140#		
				FALL		30"		

DEPTH FT	CASING BLOWS	SAMPLE NO	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	IDENTIFICATION	REMARKS
1		S-1	8 8 6 3		Br & gr cfS, l.(+)S, w.cndrs FILL(Sand, Silt, Gravel, Cinders, Boulders)	
2						
3		S-2	24 30		Bldr fgmts	
4			3 5			
5		S-3A	11 12		Bk br cfS, l.(+)$, cndr 5'0"	
6		S-3B	13 14		Gr cfS, l.$	
7		S-4	15 23		Gr & br cfS, l.$	
8			29 27			
9		S-5	13 14		do	
10			17 25			
11		S-6	7 9		Gr cfS, l.$, w.lyr C&$	
12			14 16		Gray coarse to fine SAND, little Silt, with occasional layers of Clay and Silt	
13						
14						
15						
16		UD-1	P U S H		do	UD-1 15'-17' Rec:12" Sample in jar
17			6			
18		S-7	6 9		Br cfS, l.$	
19			7			
20						
21		S-8	3 5		do	
22			5 6			
23						
24					24'0"	
25						
26		UD-2	P U S H		Gr br alt lyr cfS, l.$, & C&$	UD-2 25'-27' Rec:24"
27			3			
28		S-9	3 4		Gr br C&S, w.lyr cfS, l.$	
29			5			
30						
31		UD-3	P U S H		do	UD-3 30'-32' Rec:24"
32			W			
33		S-10	O R		Gr br vvd C&$, w.sms mfS, l.$	
34						
35			W			
36		S-11	O			
37	M				Gray brown varved CLAY & SILT, with seams of medium to fine Sand, little Silt	
38	U					
39	D					
40						
41		S-12	W O R		do	
42						
43						
44						
45			W			
46		S-13	O R		do	
47						
48						
49						
50			P			
51		UD-4	U S H		Gr br vvd C&$, w.sm cfS, l.$	UD-4 50'-52' Rec:24"
52						

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	IDENTIFICATION BORING NO. U/D-1 CONTINUED C7403-3	REMARKS
53		S-14	W O R		do	
54						
55			W			
56		S-15	O R		do	
57					Gray brown varved CLAY & SILT, with seams of medium to fine Sand	
58						
59						
60						
61		S-16	W O H		do occ.sm fS	
62						
63						
64						
65			W			
66		S-17	O H		Gr br vvd C&$, w.frqt sms mfS	
67						
68						
69						
70			P			
71		UD-5	U S H		do	UD-5 70'-72' Rec:24"
72			W			
73		S-18	O H		do	
74						
75			6			
76		S-19	9 10		Gr & rd br vvd C&$, w.sm mfS	
77			14			
78						
79					Gray brown varved CLAY & SILT, with seams of medium to fine Sand	
80						
81		S-20	W O H		do	
82						
83						
84						
85						
86		S-21	0 0 2 7		Gr br vvd C&S, w.sms mfS	
87						
88						
89						
90	M					
91	U	UD-6L	P U S H			UD-6L 90'-92' Rec:0
92	D					
93		S-22	W O R		Gr br vvd C&S, w.frqt sm mfS	
94						
95						
96		UD-7	P U S H			UD-7 95'-97' Rec:24"
97			0			
98		S-23	0 10		do	
99			11			
100						
101		S-24	0 0 7 9		do Gr br vvd S&C, w.sms mf$	
102						
103						
104						
105			0			
106		S-25	0 14 11		do	
107						
108						
109						
110						

JOSEPH S. WARD, INC. CONSULTING ENGINEERS | TEST BORING LOG | BORING NO. U/D-1

PROJECT Park Place East, Woodridge, New Jersey | SHEET NO. 3 OF 4

CLIENT Rovic Construction Company | JOB NO. C7403-3

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	IDENTIFICATION BORING NO. U/D-1 CONTINUED	REMARKS
110			0			
111		S-26	0		do	
			8			
112			13			
113					Gray brown varved CLAY & SILT with seams of medium to fine Sand	
114	M					
115	U					
116	D	UD-8				UD-8 115'-117' Rec:24"
117						
			W			
118		S-27	O		do	
			H			
119						
120			1			
121		S-28	3		do	
			5			
122			7			
123						
124						
125						
			5			
126		S-29	5		do	
127			9		Gr vvd C&S, w.sm mfS	
			14			
128	M					
129	U					
130	D					
			4			
131		S-30	6		do	
132			10			
133						
134					Gray brown varved CLAY & SILT, with seams fine Sand	
			P			
135		UD-9	U			UD-9 134'-136' Rec:24"
			S			
136			H			
			WR			
137		S-31L	WR			
			WR			
138			WR			
139						
140						
			WR			
141		S-32	WR			
			12			
142			10		Rd gr vvd C&S, sms S	
143						
144						
145						
			WR			
146		S-33	WR			
			WR			
147			7		do	
148						
149						
150						
			P			
151		UD-10	U			UD-10 150'-152' Rec:24"
			S			
152			H			
			WR			
153		S-34	WR			
			WR			
154			WR		Gr vvd C&S w.sms fS	
155						
156						
157						
158						
159					Gray brown varved CLAY & SILT, with seams fine Sand	
160						
			WR			
161		S-35	WR			
			WR			
162			9		do	
163						
164						
165						

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	SYMBOL	IDENTIFICATION BORING NO. U/D-1 CONTINUED C7403-3	REMARKS
166		S-36	WR			
			WR			
167			20		Red br vvd C&S, w.sms fS, lns gr C&S	
168						
169						
170					170'0"	
			9		Red brown Clayey SILT little, fine Sand	
171		S-37	24			
			37			
172			59		Rd br Cy$, l.,fS	
173					END OF BORING @ 172'0"	
174						
175						
176						
177						
178						
179						
180						
181						
182						
183						
184						
185						
186						
187						
188						
189						
190						
191						
192						
193						
194						
195						
196						
197						
198						
199						
200						
201						
202						
203						
204						
205						
206						
207						
208						
209						
210						
211						
212						
213						
214						
215						
216						
217						
218						
219						
220						
221						
222						
223						

REMARKS

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 8:50 AM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 9:10 AM TEST PIT NO. 1

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 3½' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL	REMARKS
0	dense	moist	FILL(Red brown coarse to fine SAND, and Clayey Silt with pieces of Shale)	
	stiff	moist	Black Organic SILT 3'6"	
5	dense	moist	Gray medium to fine SAND, little Silt 4'0"	
			BOTTOM OF PIT @ 6'6" 6'6"	
10				
15				
20				

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 9:15 AM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 9:22 AM TEST PIT NO. 2

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH At surface INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL	REMARKS
0	dense	moist	FILL(Red brown coarse to fine SAND) 2'0"	
	stiff	moist	Black Organic SILT, and fine Sand 3'0"	
5	dense	moist	Brown medium to fine SILT, little Silt 6'6"	
10			BOTTOM OF PIT @ 6'6"	
15				
20				

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 9:25 AM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 9:35 AM TEST PIT NO. 3

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 4' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL	REMARKS
0	dense	moist	FILL(Red brown coarse to fine SAND, little Clayey Silt, and Bricks, Cinders) 2'6"	
	dense	moist	Black fine SAND, and Organic Silt 3'0"	
5	dense	moist	Gray medium to fine SAND, little Silt 6'0"	Water @ 4'0"
			BOTTOM OF PIT @ 6'0"	
10				
15				
20				

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 9:40 AM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 9:50 AM TEST PIT NO. 4

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 3½' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL		REMARKS
0			Blacktop on Stone	0'4"	
	dense	moist	FILL(Red brown coarse to fine SAND, little Clayey Silt, fragments of Shale	3'6"	Water @ 3'6"-very slow seepage
	stiff	moist	Black Organic SILT, trace fine Sand, with Roots	4'2"	
5	dense	moist	Gray and brown medium to fine SAND, little Silt	6'0"	
			BOTTOM OF PIT @ 6'0"		
10					
15					
20					

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 10:45 AM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 10:55 AM TEST PIT NO. 5

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH At surface INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL	REMARKS
0	soft	wet	FILL(Brick, Cinder, Metal) 3'0"	Water @ surface
	soft	wet	Black Organic SILT, trace fine Sand, with Roots 4'0"	
5	dense	moist	Gray medium to fine SAND, trace Silt 6'0"	
			BOTTOM OF PIT @ 6'0"	
10				
15				
20				

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 10:25 AM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 10:40 AM TEST PIT NO. 6

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 3' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL	REMARKS
0	soft	moist	FILL(Gray coarse to fine SAND, little Silt, and Cinder, Weed, Glass) 3'0"	
	stiff	moist	Black Organic SILT, trace fine Sand, with Roots 4'0"	
5	dense	moist	Gray brown medium to fine SAND, little Silt 7'0"	
			BOTTOM OF PIT @ 7'0"	
10				
15				
20				

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 9:55 AM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 10:05 AM TEST PIT NO. 7

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 3' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL		REMARKS
0			Blacktop	0'5"	
	dense	moist	FILL(Red brown coarse to fine SAND, little Clayey Silt, fragments of Shale pieces)		
				3'0"	Water @ 3'0"
	stiff	moist	Black Organic SILT, trace fine Sand	3'4"	
	dense	moist	Gray brown medium to fine SAND, trace Silt	5'0"	
5			BOTTOM OF PIT @ 5'0"		
10					
15					
20					

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 11:05 AM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 11:15 AM TEST PIT NO. 8

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 2½' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL		REMARKS
0			Blacktop and Stone	0'3"	
	dense	moist	FILL (Red brown coarse to fine SAND, little Clayey Silt, fragments of Shale pieces)	2'6"	
	stiff	moist	Black Organic SILT, trace fine Sand, with Roots	3'0"	
	dense	moist	Gray brown medium to fine SAND, trace Silt	4'6"	
5			BOTTOM OF PIT @ 4'6"		
10					
15					
20					

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 11:20 AM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 11:30 AM TEST PIT NO. 9

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 2' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL	REMARKS
0	dense	moist	FILL(Red brown coarse to fine SAND, little Clayey Silt, some coarse to fine Gravel	
			2'0"	Water @ 2'0" slow seepage
	stiff	moist	Black Organic SILT, and fine Sand, with Roots	
			2'6"	
	dense	moist	Gray brown medium to fine SAND, trace Silt	
5			6'0"	
			BOTTOM OF PIT @ 6'0"	
10				
15				
20				

TEST PIT LOG

JOSEPH S. WARD, INC.
CONSULTING ENGINEERS
CALDWELL, NEW JERSEY

STARTED DATE 3/13/74 TIME 11:33 AM JOB NO. C7403-3

FINISHED DATE 3/13/74 TIME 11:45 AM TEST PIT NO. 10

CLIENT Rovic Construction Company SITE Woodridge, New Jersey

SURFACE ELEVATION - EXCAVATOR G. Underhill

DATUM - EQUIPMENT 450 Case Backhoe

WATER DEPTH 3' INSPECTOR Roger E. Shine

DEPTH	DENS.	MOIST	DESCRIPTION OF SOIL	REMARKS
0			Topsoil 0'2"	
	dense	moist	FILL (Red brown coarse to fine SAND, little Clayey Silt, little coarse to fine Gravel, fragments of Shale 3'0"	
	stiff	moist	Black Organic SILT, trace fine Sand, with Roots 4'0"	
5	dense	moist	Black brown medium to fine SAND, little Silt 7'0"	
			BOTTOM OF PIT @ 7'0"	
10				
15				
20				

Attendees to June 12, 1974 meeting with Rovic Construction Co., Inc.:

Dr. Joseph P. Lafornara, U.S.E.P.A., 201-548-3347

Mr. David C. Longstreet, N.J.D.E.P., 609-292-5560

Mr. William Librizzi, U.S.E.P.A., 201-548-3347

Mr. Uwe Frank, U.S.E.P.A., 201-548-3347

Mr. John V. Tekin, Radiac Research Corp., 212-963-2233

Gary P. Hall, Gaess Environmental, 773-9490

Ron Kilez, Gaess Environmental, 773-9490

Robert C. Peterson, Ventron Corp.

Bernard Mageer, Former Ventron Chemist, 201-225-1363

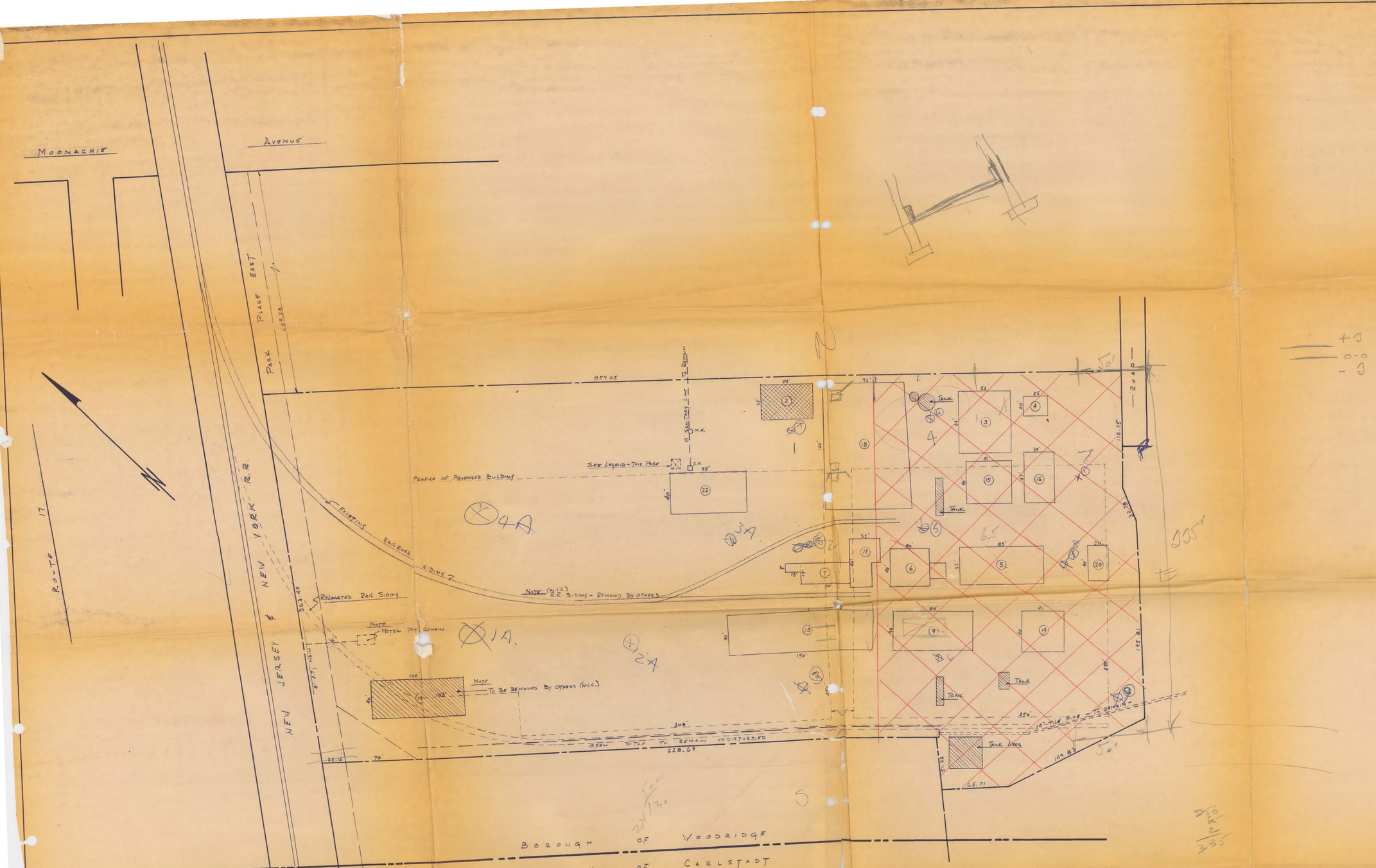
Charles Sievers, Former General Plant Forman Ventron, 641-5043

Robert H. Wolf, The Wolf Org., 201-653-6300

John F. Andrews, Rovic Construction Co., Inc., 201-653-6300

LOCATOR CODE* ROVIC07306
LOCATOR ZIP* 07306
FACILITY NAME* ROVIC CONSTRUCTION CO INC
FACILITY TYPE* NTR
OWNER-OPERATOR NAME* ROVIC CONSTRUCTION CO INC
OWNER-OPERATOR TELEPHONE* 201-653-6300
REGION* 2
STATE* NJ
START UP DATE* 01/10/1974
PREPARATION DEADLINE* 07/12/1974
IMPLEMENTATION DEADLINE* 01/10/1975

MAILING FACILITY* ROVIC CONSTRUCTION CO INC
MAILING ADDRESS LINE ONE* 911 BERGEN AVENUE
MAILING ADDRESS LINE TWO* JERSEY CITY , NJ 07306



PLOT PLAN

SCALE 1"=40'-0"

SCHEDULE

Building No.	Building Title	Action To Be Taken	Type	Construction
2	Office	Building To Remain - Do Not Damage -	1 - Story	Masonry
3	Zironium	Demolish And Remove	2 - Story	Cinder Block
4	Storage	Demolish And Remove	1 - Story	Cinder Block
5	Maint. Shops And Storage	Demolish And Remove	2 - Story	Comp.
6	Boiler House	Demolish And Remove	1 - Story	Cinder Block
7	Garage And Lunch Room	Demolish And Remove	1 - Story	Comp.
9	Warehouse	Demolish And Remove	2 - Story	Cinder Block
13	Warehouse	Demolish And Remove	2 - Story	Concrete Block
14	South Quonset	Demolish And Remove	1 - Story	Block And Metal
15	North Quonset	Demolish And Remove	1 - Story	Conc. Metal
16	Spray Dryer	Demolish And Remove	2 - Story	Metal
17	Still Shed	Demolish And Remove	1 - Story	All - Metal - Steel
18	Main Factory	Demolish And Remove	2 - Story	Cinder Block
19	Storage	To Be Removed By Others (N.I.C.)	1 - Story	Metal
20	Shed	Demolish And Remove	1 - Story	Metal
22	Change House	Demolish And Remove	1 - Story	Masonry

NOTES

1. Existing Sanitary Line Noted On Drawing To Remain - Not To Be Damaged -
2. Existing Outer Marker For Airport To Remain - Not To Be Damaged -
3. Remove All Tank Foundations To Existing Grade
4. Rovic Construction Company Retains The Right To Remove (From The Site And Buildings) Any Part Or Parts Thereof Prior To Commencement Of Demolition
5. Demolition To Commence (Approx.) During The Week Of April 1st - April 8th, 1974

LEGEND

- Symbol indicates Building or Tank To Be Removed By Others (N.I.C.) See General Note No. 3
- Symbol indicates Building To Remain In Use (N.I.C.) - Do Not Damage -
- Symbol indicates Airport Outer Marker - Do Not Damage -

D-US 5 for rd 6-9-77

Revisions	Remarks	
3/20/74 - Relocated Track & Building Profiles		JD

AFFILIATED WITH ROVIC CONSTRUCTION CO., INC. 911 BERGEN AVENUE JERSEY CITY, N.J. 07306 — General Contractors & Engineers

GEO. J. WOLF REALTY CO. Realtors - Developers 911 BERGEN AVENUE JERSEY CITY, N.J. 07306

Project: PARK PLACE EAST DEVELOPMENT

Location: WOODRIDGE, NEW JERSEY

Scale	As Noted	Drawing No. A1-3574
Date	3/5/74	
Drawn By	JD	